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ABSTRACT

The curriculum guide takes a transdisciplinary approach to developing skills in severely and profoundly retarded students. The introductory section explains that the curriculum incorporates the principles of student dignity, a developmental focus, normalization and a continuum of services, and systematic teaching strategies. Offered are guidelines for stress observation and assessment, instructional planning, reinforcement, and ongoing evaluation. Six sections outline objectives, teaching methods, and materials for the following skill areas (subareas in parentheses): communication (receptive and expressive language); socialization (awareness of self and others, play, and behavior control); purposeful activities (orientation, daily routines, work skills, home skills, and community skills); and recreation (water activities, physical activities and sports, creative activities, outdoor activities, and leisure activities). Appendixes contain a checklist to chart student progress, a glossary of psychoeducational, physical, and medical terms; and a list of resources which include a basic book list, titles of reference books, and a list of assessment guides. (SW)

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Dependent Handicapped

Curriculum Guide

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PHILOSOPHY

A. THE DEPENDENT HANDICAPPED STUDENT AND GOALS OF EDUCATION

Education is a process whereby an individual is helped to develop new behavior, to modify present behavior and to apply existing behavior to equip him to live more effectively. A specific aim of education for the dependent handicapped student is to make him less dependent by increasing his awareness and control of his environment.

In addition to instruction and programs to develop their abilities in the affective, psychomotor and cognitive domains, dependent handicapped students require intensive instruction and ongoing assistance and/or supervision in daily living skills. Motor development, basic communication, and social skills must often be taught within a structured educational environment. The student who is dependent handicapped may have skills and abilities ranging from little mobility to complete ambulation, from an inability to make needs known to adequate communication, from a general unresponsiveness to the environment to goal-directed behavior. Unacceptable behavior may require control or tolerance. Extensive personal and health care may be needed.

Even though dependent handicapped students vary greatly in skills and abilities, they tend to have some common characteristics. They are generally severely and profoundly mentally handicapped, have numerous and often severe physical disabilities, lack the ability to guard themselves against common dangers and may need the support of others for life. Some students may be dependent handicapped because of physical or medical needs, yet be functioning cognitively above the severe to profound level of mental handicap. From an educational perspective these students share the characteristics of functional retardation in significant and individual ways. As such, each requires remedial and developmental instruction.

B. BACKGROUND

Education of the dependent handicapped has become, during recent years, a challenging frontier for schools. Until recently the majority of these children had been excluded from public educational programs because they were considered unable to benefit from an educational program.

This exclusion from programmed learning opportunities meant that the special needs for systematic, intensive and individual learning experiences were ignored. Commonly, they were relegated to custodial, group care with minimal educational planning. However, research combining existing educational methods and rehabilitation therapies with new techniques, is showing that they can learn. Given appropriate education, despite the limitations of serious disabilities, they are capable of personal and social development.

C. TRANSDISCIPLINARY APPROACH

A transdisciplinary model for programming is one in which teacher, professional support personnel such as psychologists, social workers, physicians, nurses, physio- and occupational therapists and speech clinicians as well as parents and volunteers share information and skills with each other. For optimal benefit in assessment, education and treatment, close team work is essential.

A small number of key workers implement the program, ensuring that the child benefits from a consistent approach in both home and school. Team members increase their knowledge and skills under the supervision of appropriate professionals. Authorization by the appropriate discipline may be necessary to allow this sharing to take place. Mutual respect, flexibility and cooperation are required of those who work with the dependent handicapped student.

D. THE ROLE AND PREPARATION OF THE TEACHER IN A TRANSDISCIPLINARY APPROACH

The teacher of the dependent handicapped assumes the role of classroom coordinator, special instruction and program developer, with some of the instruction and personal care being carried out by trained teacher assistants under direction of the teacher. The teacher must therefore be able to seek out, integrate and implement a wide array of information from professionals and the family into a plan developed specifically for an individual student. He then coordinates and implements the plan, monitors and evaluates progress and makes adaptations as necessary.

From these functions as coordinator, developer and special educator, it follows that the teacher of the dependent handicapped requires special preparation. Beyond the usual basic professional teacher education in areas of curriculum, methods, learning and development, academic content and administration there is a need for special knowledge and practice. Preparation through pre- and/or inservice training is necessary for competency in: educational evaluation of the severely handicapped, programmed instruction, special training techniques, behavioral management, monitoring and measurement and the analysis and teaching of pre-academic, daily living and communication skills.

Acceptance of the transdisciplinary approach includes understanding of the contributions from personnel from social, behavioral, rehabilitation and medical fields. Personal and social relationships are of particular importance to learning and development in the handicapped. Therefore, the ability to interpret to and consult with parents, other family members, other teachers and other students are valuable assets. In brief, teachers of the dependent handicapped need knowledge, attitudes and skills which, traditionally, have not been required of teachers.

E. PRINCIPLES OF EDUCATION FOR DEPENDENT HANDICAPPED

1. Dignity of the Student

Consistent attitudes of respect and consideration for each student with severe and profound handicaps are essential. The student who is dependent handicapped should be treated with dignity at all times. Steps must be taken to ensure that the severity of this handicap does not detract from his image of worth. He should be well dressed, well groomed and treated courteously at all times. Potentially embarrassing situations with regard to personal privacy should be watched for and eliminated. Whenever possible, an attempt should be made to consult with the student regarding his wishes, his choices and decisions. He must be allowed, within reasonable limits, the freedom to make mistakes, as well as to experience success.

2. Developmental Focus

While it is generally agreed that learning follows an orderly pattern of development which is continuous, sequential and hierarchial, such sequence may not apply as rigidly to the dependent handicapped student. Discrepancies in development of cognitive, social and motor areas are common. However, while research continues and until other methods are validated, this general developmental pattern should still be considered an important reference base. While learning for the dependent handicapped does not always follow established patterns, it is important to recognize that development continues throughout life span and that rate and level of development can be influenced greatly by systematic training.

Recognition of the student's capacity to continue to develop and learn into adult years will enable the program staff to adapt curricula to take advantage of those times when the student is able to learn new skills because a new developmental milestone has been reached.

3. Normalization and Continuum of Services

The philosophy of normalization promotes the expectation that the dependent handicapped be accorded opportunities to develop to maximum potential; these opportunities should be provided within the most normal conditions possible. Normalization, therefore, requires the implementation of an age-appropriate curriculum within a setting which is as natural as possible, i.e. in the least restrictive environment.

With the child who is dependent handicapped, intervention should start as soon as the child is born. Parents should be seen as a primary source of information regarding his skills and needs, and encouraged and expected to take an active part in program planning.

Early intervention is an essential part of the education process for the student who is dependent handicapped because of the multiplicity of his handicaps. Inattention to physical or sensory disabilities causes serious problems later on. Because these children are growing physically, there is a particular need to ensure that crippling deformities requiring intensive treatment do not result from abnormal postures. Failure to provide early intervention may result in the development of non-functional and undesirable behaviors in the child, which will take time to eradicate.

Functional coping skills should be taught at an early age. Programs should be provided in the home and in the nursery school environment, and in ECS settings with specially qualified teachers, rehabilitation professionals, skilled support staff and parents working together to design and implement age appropriate preschool programs. A specific worker should be designated as responsible for providing early intervention services.

Upon entry into school, individualized educational programs should be planned to enable each student to progress at his own pace, building on each individual's strengths while giving assistance to correct or circumvent weaknesses.

The design of comprehensive education programs must take into consideration the long term nature of training with the students who are dependent handicapped. Curriculum and the educational setting should encourage increasing independence. Care should be taken to ensure that moves from one community-based educational environment to another occur. At the minimum, there should be a move from a preschool to elementary school setting, from elementary school to a more advanced education setting and finally to an adult activity setting.

F. SYSTEMATIC TEACHING APPROACHES

Structure and organization are important in a transdisciplinary model when members of a team are involved in program planning and implementation. To date, a behavioral and functional approach has proven most effective in the education and training of severely and multiply handicapped students. However, rigid adherence to structure reduces response frequency and variety, making adaptive learning less likely.

The teacher of the dependent handicapped must be well organized and diligent in writing, recording and updating lesson plans. He must also be aware of the importance of introducing flexibility and uncertainty into a small portion of the school day so that the student learns to confront novelty, make decisions and initiate action.

1. Long Range Objectives

The daily teaching plans should be consistent with the long range objectives for the student. Some long range objectives are:

a. TO INCREASE THE STUDENT'S AWARENESS OF HIS ENVIRONMENT. Teaching strategies should provide a variety of structured experiences and settings, including natural environment, to stimulate student transfer of skills from situation to situation.

b. TO INCREASE THE STUDENT'S ABILITY TO EXERCISE CONTROL OVER HIS PERSONAL ENVIRONMENT. All content areas should encourage the student to make his needs and wishes known, to make choices and to initiate action.

c. TO INCREASE THE STUDENT'S ABILITY TO APPROACH NEW SITUATIONS WITH CURIOSITY. The teacher should model curiosity and interest in new situations, and prepare and support the student's entry into new situations.

d. TO INCREASE THE STUDENT'S ABILITY TO LEARN FROM AND RELATE TO OTHERS. To foster independence, communication and socialization the student's learning should include: one-to-one situations, small groups and situations encouraging modeling/interaction.

e. TO MAXIMIZE THE STUDENT'S ABILITY TO FUNCTION WITHIN HIS PRESENT ENVIRONMENT AND PREPARE HIM FOR IMPROVED FUNCTIONING IN ALTERNATE SETTINGS. Teaching should stress practical skills in ways which maximize transfer from school to home and other environments. The criterion of skill mastery should be the establishing and maintenance of the skill in its natural setting.

2. Teaching Principles and Related Guidelines

Major principles and guidelines for developing and applying instructional programs for dependent handicapped students are summarized as follows. The teacher should:

a. Stress Observation and Assessment:

Information on present behavioral and physical functioning of the student is gathered. The teacher secures existing information and through observation and further evaluation identifies assets and deficits in learning and development. In consultation with others, who are familiar with the student, the teacher develops an inventory of the student's needs for support and resources within the educational setting, in respect to health care, skills in mobility, self-help, socialization, communication, self-control, pre-academic and, possibly, basic academic tasks.

From the assessment-based inventory of abilities and disabilities a program of objectives and instructional plans is derived.

b. Choose Relevant Objectives:

Priorities for the dependent handicapped student should reflect both long range goals and short term objectives. The objectives or target behaviors should be stated in concrete functional terms which are observable, measurable and recordable. Behavioral targets and skills which are relevant and useful should be selected, not only in teaching situations, but also in the natural setting of the home and community. Objectives must be close to existing skills and be practised once learned. Some targets should be joint programs with the home to provide an opportunity to share results and methods, thereby involving the parents directly in the education process.

c. Prepare Instructional Plan:

The instructional plan ensures consistency and communication among team members. Most targets must be broken into smaller steps to facilitate teaching. The technique used to teach each of the steps depends on the type of skills, the stage of mastery and the most effective means of instruction for the student. The following are necessary steps, subsequent to initial assessment of current performance levels, in writing instructional plans. The teacher should:

(1) Specify clearly each behavior to be learned as an instructional objective (target);

(2) Order each behavioral target into a small-step curriculum sequence;

(3) Specify, in detail, the environmental setting, materials and instructions to be provided;

(4) Identify, precisely, the techniques of feedback, correction and reinforcement to be used;

(5) Describe objectively, the criteria for an acceptable level of achievement for each target, i.e. indicators of satisfactory proficiency and efficiency;

(6) Provide for an ongoing and systematic use of measurement and evaluation;

(7) Plan for flexibility and adaptations in behavioral objectives, procedures, materials and/or reinforcement techniques in the event of ineffective instruction;

(8) Provide for maintenance, generalization and application of newly acquired skills.

d. Apply Reinforcement:

Teachers face special problems in the motivation of dependent handicapped students. Frequently, the students have limited ability to communicate, limited mobility and limited experience with achievement. Increasingly, however, the importance of the systematic use of reinforcement techniques in the teaching of the severely and profoundly handicapped is being demonstrated. Identification and continuing analysis of events which reinforce the student are basic to instruction. Further, reinforcers, i.e. events or consequences which strengthen desirable behavior, are idiosyncratic and subject to change.

Application of primary reinforcement, e.g. consumable rewards, as a consequence of desirable behavior is frequently needed. As a general rule, concrete rewards should be coupled with, and gradually replaced by, secondary reinforcement, e.g. social rewards. Obviously, all who work within the instructional plan must be consistent in the application of reinforcement procedures for the individual student.

e. Provide Ongoing Evaluation:

Each student's performance chart should be analyzed and updated at the end of each day. Long term records should be kept to detect and monitor change more accurately.

Periodic checks must be made as to overall progress of the student. Teachers must assess the students regularly, and check for retention, maintenance, and generalization of newly acquired skills.

Introduction to Guide

This curriculum guide includes both the traditional skill areas of motor development, self care, cognitive development, communication and other life skills: socialization, recreation, vocational and home activities.

The guide emphasizes functional skills, those frequently required for daily living, as a means of preparing the student to function as independently as possible in school, at home and in the community. Because most dependent handicapped students do not transfer skills easily or well, teachers should try to teach skills that are required of students in their natural environments.

Teachers are encouraged to select skills for teaching in each major area by first assessing the student's performance on the objectives checklist and then selecting objectives that:

- are related to those the student has already mastered
- will be practised in other environments once learned
- are important to teachers and parents and have some interest value for the student.

Not all students will be able to achieve all of the objectives but all should have the opportunity to participate to the extent of their abilities in functional, age appropriate skills.

A special considerations section appears at the end of several units with hints and suggestions for teachers. It is recommended that teachers become familiar with Handling the Young Cerebral Palsied Child at Home by Nancy Finnie, as a basic reference text. Teachers should use the methods recommended in creative ways in order to have individual students use whatever sensory capacities they have to experience their world.

MOTOR SKILLS

INTRODUCTION

The motor skills section is divided into posture, mobility, strength and endurance, balance and coordination and fine motor skills. In the majority of skills, these components overlap, e.g. sitting requires mobility to assume the position, strength in the upperportion of the body and balance to maintain the position. For this reason, in order to teach any one skill, e.g. sitting, the teacher should be familiar with all six components.

Correct posture is important because it increases the efficiency of movement, influences how people perceive us and helps body parts, internal organs and systems to function in a healthy way. Proper sitting posture enhances effective use of the hands and allows eye contact with people and materials. It allows digestion, breathing and circulation systems to function optimally and decreases the risk of developing skin sores and permanent deformities.

Mobility refers both to transition from one position to another, e.g. front lying to back lying, sitting to kneeling, and movement, e.g. crawling, walking.

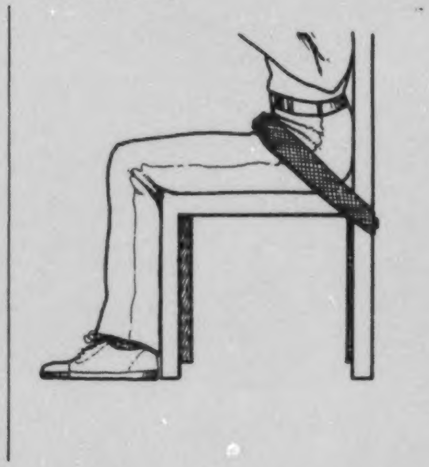
The strength and endurance components of motor skills are essential to handicapped students, especially non-ambulatory students who may require upper body strength. Endurance refers to the repetition of any skills in the strength section. Teachers should be aware of any medical problems that may limit endurance. They should also ensure that there is adequate strength to attempt the activity, provide adequate support to ensure safety, e.g. if not able to sit alone, the student should not be left alone on a rocker board.

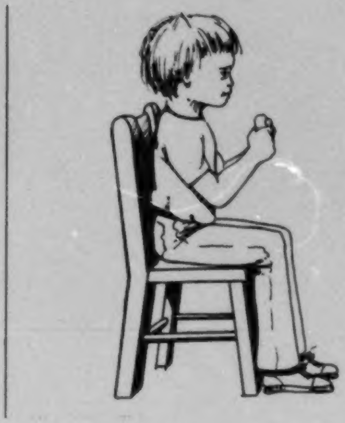
Coordination refers to patterning the action of the body's muscles so that they work together. It is often seen as the refining component of motor skills, e.g. timing in walking.

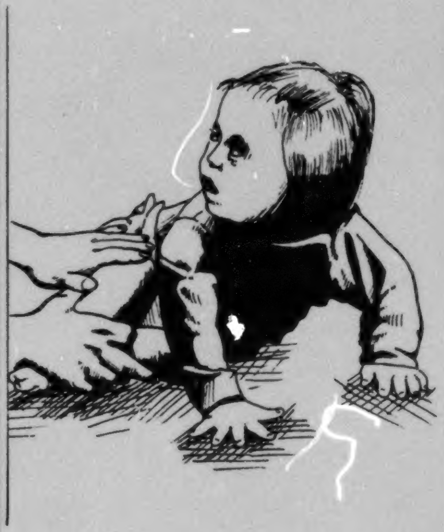
Fine motor movements are those that require the use of small muscles, e.g. hand, eye. Usually the control of gross movements is taught before teaching fine motor coordination, although the two develop in conjunction with one another and should be taught concurrently, utilizing a functional approach, e.g. tying shoelaces requires correct positioning, balance and control of the upper limbs, to allow for the eye-hand coordination necessary to complete the task.

The special considerations section provides information on reflex activity, range of motion, positioning and transfers.

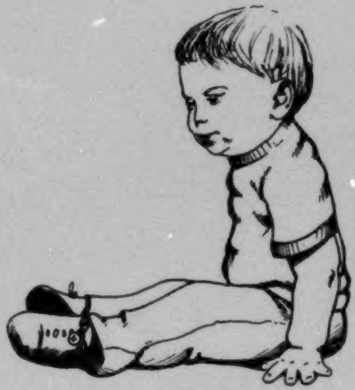
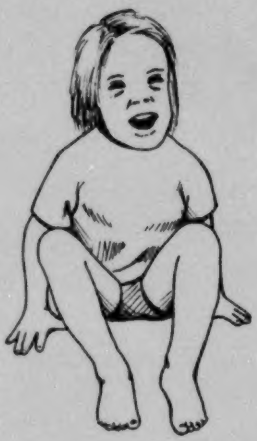
Note: It is of extreme importance that motor skill programs be implemented only after consultation with a physiotherapist and/or occupational therapist. Due to the variability of disabilities, highly individualized techniques will be necessary.

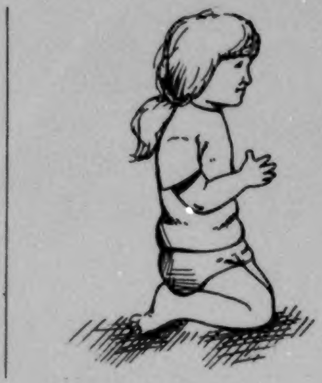
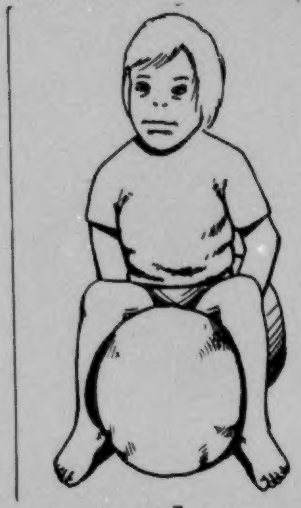
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
1. Posture The student: Sits in a chair and displays good posture.	Make sure all of the student's joints are in good alignment. Provide stabilization in the form of straps or cushions if the student cannot maintain good posture independently: - head: should be upright and in midline; - spine: should be straight, not leaning to the side or rounded; - arms: forearms should be supported on a table or chair arms so that the elbow is bent 90°; - hips: should be symmetrical and flexed at least 90°. Have student sit squarely on his buttocks, NOT on the lower part of his spine or tailbone. If position cannot be maintained, a belt should be attached to the chair at the buttocks or upper thigh area and angle up to cross the hips. Do not place seat belts across the waist; 	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:	- thighs: seat should support entire thigh to within 4 cm (2 fingers) of the knee; - knees: should be flexed at 90°; - feet: should be flat on the floor (or a foot box) so ankles are aligned straight and flexed at 90°. 	
Sits on floor in various positions:	A similar posture to sitting on a chair should be maintained: - head: should be upright; - spine and hips: back should be straight and hips flexed. If rounding of the back occurs, place student in extreme hip flexion (trunk bent forward) and pull upper thighs back (towards you). When student sits upright, he will be sitting on his buttocks, discouraging rounded back;	

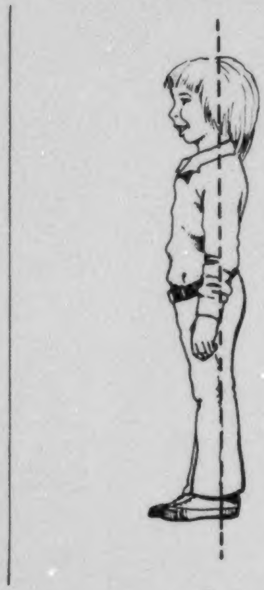
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	- arms: should be used to manipulate objects, not as support. If sitting balance is poor, provide a small corner seat or prop student with cushions so hands are free to use.	
- cross leg sitting	Note: This may be the most stable position to sit in. However, the student should not be left in this position.	
- side-sitting	Encourage the student to move in and out of the side-sitting position independently. Do not use this position if student displays lateral curvature of the spine (scoliosis).	A Comprehensive Program for Multi-Handicapped Children, p. 26.
		

MOTOR SKILLS
A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
- long sitting	Encourage the student to sit with legs stretched out in front of him, both using his hands for balance and without using his hands. 	
- sitting with flexed knees	Encourage student to sit with hips bent, knees up and feet flat on the floor, using both hands for balance to teach him to stop himself from falling backwards. 	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
- heel sitting	Encourage student to occasionally sit on his heels, (but NOT sit on the floor between his heels which is known as W-sitting and can be harmful because it can lead to hip displacement). 	
- straddling a roll	Encourage and assist student to straddle a roll or bolster so that his hips and knees are flexed and his feet are flat on the floor. 	

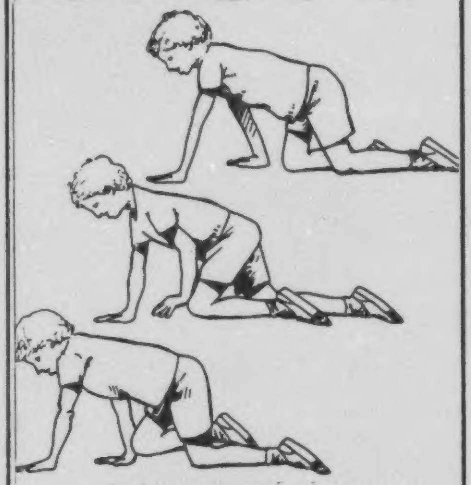
MOTOR SKILLS
A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student: Stands and walks with good posture.	Make sure all of the student's joints are in good alignment: - head: should be upright with chin retracted, NOT poking forward; - spine: should also be straight and up right; - arms: should be relaxed at the sides; - hips: should be symmetrical and upright, NOT bent forward. Stomach and buttocks should be tucked in; - knees: should be straight or very slightly bent; - feet: should be flat on the floor (not tip-toe) and toes pointed very slightly outward. If the student is unable to maintain static posture, consider strengthening the anti-gravity muscles (lower back extensions, buttock muscles, abdomen). 	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
2. Mobility The student:		
Develops the ability to roll.	Place the student on his back on the floor. Position yourself at his side.	A Comprehensive Program for Multi-Handicapped Children, p. 24.
	Provide a verbal prompt, or physical assistance by turning his head to the side.	
	Bend the outside hip and knee in the direction that he is rolling.	Gym mat, bed, sheets, suspended toys, mirror.
	Make sure the head turns first and the body follows in the direction of the turn.	
	Use reinforcers, e.g. mirror or toys, to encourage the student to roll.	
	Once student is able to roll from back to side to stomach, place him on his stomach and encourage rolling to side to back.	
	Turn the student's head toward left arm. Place the right arm, bending it at the elbow and set the palm flat on the floor. Encourage student to roll over using this arm.	
	Provide assistance by gently lifting the left shoulder up and back, as well as gently rolling the left hip.	
	Encourage rolling in both right and left directions.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Have the student practise rolling on a variety of surfaces, e.g. carpet, linoleum, blankets, gym mats. If the student has difficulty rolling over on the floor, use an incline board or wedge, so that his head is raised.	
Assumes a sitting position.	Place the student in a prone position and provide physical assistance as necessary. Have student push chest and abdomen up from the floor using hands or arms. Have him bend his knees and hips to obtain a 4-point kneeling position; then rotate his trunk, place his body weight on either hip, and push trunk upright so that he is sitting on his buttocks.	A Comprehensive Program for Multi-Handicapped Children, p. 25.
Creeps.	Note: The student must have head control, be able to support himself through his shoulders and do purposeful leg movements. Place the student on his stomach on the floor. Encourage him to lift his head and move forward, e.g. call his name, dangle a toy, provide a mirror. If he is unable to pull himself forward or bend arms, move them forward for him one at a time.	A Comprehensive Program for Multi-Handicapped Children, p. 30.

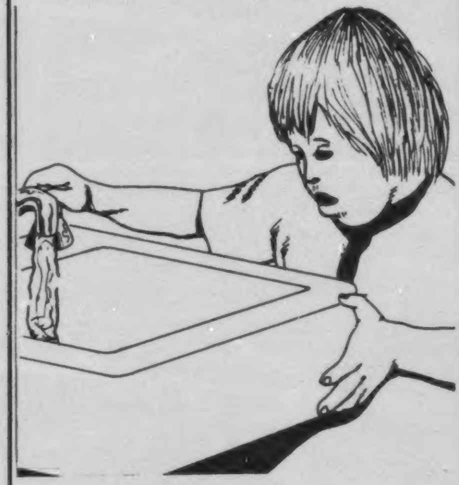
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	If necessary, provide assistance at the back of his calves and ankles to push his knees forward one at a time.	
	Note: The method of creeping may vary from student to student, e.g. arms bent and legs straight, or arms straight and legs bent.	
Assumes a kneeling position.	Encourage the student to push his abdomen and chest from the floor, at the same time bending his knees to raise the hips from the floor.	
	If necessary provide assistance by placing a towel under the student's chest, straddle him, and gently pull him up until he is on all fours. Gradually reduce assistance.	
	Play games with the student, e.g. have him form a bridge for trains, boats.	
Crawls.	Encourage the student to rock backwards and forwards while in a 4-point kneeling position.	
	Place a favorite toy, person, or mirror in front of the student, to encourage movement towards it.	
	Provide assistance to move the student's hands and knees in a crawling motion.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Reduce assistance by moving the student's hand and pulling behind the shoulder to encourage his knees to move or move the student's knees forward until he moves his hands. Encourage the student to crawl in and out of obstacles on various surfaces. 	
Attains a standing position.	Note: The student needs to be able to get to a kneeling and a half-kneeling position before he can stand. From a prone position have the student attain a 4-point kneeling position, then gently assist him to lower his hips so his buttocks are resting on his heels. Then assist the student to an upright kneel.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:	Have the student come to a kneel from a sitting position. Use a stable support which is waist to chest high. Have student sit on the floor with his legs extended in front of him. Place hands on the support, knees bent into a side sitting position, and hips rise off the floor until straight, so that the student is standing on his knees. Provide support as necessary and gradually remove it. Place toys, food, etc. on table top, or dangle a toy to encourage and reinforce the student's efforts. To reach a ½ kneel, and then a standing position have the student flex one hip and place that foot in a weight bearing position while holding onto support. Have him push up on that same leg until the second foot is placed so that weight is supported on both feet. Place student in front of a mirror to see himself as he stands, or dangle toys out of reach overhead, to encourage standing.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Provide assistance, if necessary, at the hips, to shift weight and pull the hips straight.	
	Encourage the student to attain a standing position in any one of the following ways:	
	Have student move from sitting, to hands and knees, with hands flat on the floor. Have him straighten his legs (bear walk) and push up to stand.	
	Have student move from sitting to hands and knees, pull up to kneel with support, then stand.	
	Have student move from sitting, to hands and knees, place one foot in a weight bearing position, then push up on that foot, until the second foot is in a weight bearing position.	
Moves independently from place to place (by whatever means possible).	Encourage and reinforce any independent movement and exploration by the student (unless this movement is encouraging abnormal posture), e.g. scooting on buttocks.	Scooter boards, wheelchairs, crutches, canes, walkers, wall bars.
Assists in transfers.	At all times encourage the student to assist as much as possible when being moved from place to place, or when changing his position, e.g.: - when picking a student up from the floor, encourage him to lift his arms and head;	Occupational Therapy for Mentally Retarded Children, p. 53 - 74.

MOTOR SKILLS
A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	- when standing from a wheelchair or chair have the student place his feet flat on the floor, with knees positioned forward of feet; then lean forward and push up on arms of the chair with hands/forearms;	
	- when dressing, undressing, toileting, etc., have the student kneel or stand and hold unto or lean against a sink, grab rails; 	Handling the Young Cerebral Palsied Child at Home, p. 80.
	- when student sits from a lying position, encourage him to roll to one side onto his elbow, and then push up with his hand.	
	Note: a) While encouraging independence in the student, use correct lifting techniques to minimize the chance of back strain to yourself. b) For an older and/or heavier student use a two man lift.	Special Education Handbook Section: The Physically/ Medically Handicapped Student in the Regular Classroom: Listing and Handling.

MOTOR SKILLS
A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Transfers independently.	Note: For actual transfer procedures, check with a physio-therapist or reference materials. Have the student assist in preparing for a transfer by helping to adjust foot rests or arm rests, as necessary. Gradually fade assistance as the student participates more actively. Note: The student should learn to transfer: - to a chair (and back to the wheelchair); - to a toilet (and back); - to the floor (and back); - to a car/van seat (and back); - to a bus seat (and back); - to a standing position. Have the student develop the method of transferring that he is most comfortable with. Provide structured training at first, but be sure to take into account the student's preferences. Initially have two staff available if necessary. Assume a position to assist student without interfering with his movements, e.g. behind, off to one side.	U.P.A.S.
Develops wheelchair mobility:		
- turns brake on/off	Assist the student in locating and manipulating the brake.	

MOTOR SKILLS

A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Use "hands-on" method or mark brake with brightly colored tape so that it can be located easily. Add extension onto the brake handles for easier reach.	
- manoeuvers a wheelchair forward	Provide adaptations on wheels if necessary, e.g. protruding objects that the student can hit with his hand to move the wheel. If the student has an electric wheelchair, experiment with switches to find the one that is most suited to the individual student. Work with the student as he gradually gains control of the stick/switch. Introduce how to turn the power switch on or off early to increase independence. If wheelchair has speed control switch have student use lower speed primarily when learning to manoeuver wheelchair. Start with straight routes in a fairly open area so the student has some room to move. Initially have the student go very short distances and gradually increase. Provide a good reason and reinforcement for independent movement, e.g. favorite toy, snack.	
- manoeuvers a wheelchair backward	Follow simple procedures for forward movement. Make training fun by playing games, e.g. catch me, tag.	

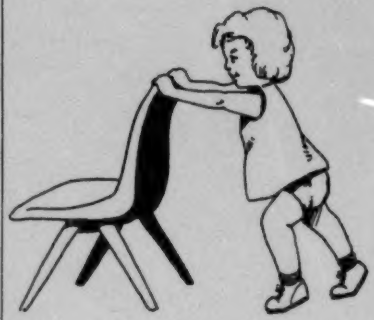
MOTOR SKILLS
A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
- turns corners in wheelchair	Start with corners where the student can turn easily, e.g. wide turn, lots of space to move in. Try pulling the student with guide ropes while he manipulates wheels to experience the movement by touch. Start with assistance and fade as soon as possible. Assist in the initial movements, but allow the student to complete the turn (backward chaining). For electric wheelchairs, try hand over hand assistance so the student feels the movements needed.	
- manoeuvers wheelchair up and down ramps	For students without electric wheelchairs, build upper body strength (push-ups, chin-ups, lifting, pulling weights, etc.). See Strength and Endurance Use a guide rope to prevent slip-backs and encourage independence. For downward movement, be sure that the student has positioned his hands correctly on the wheels to slow the wheelchair down. Have the student wear gloves (non-electric chairs) to prevent injury to their hands.	

MOTOR SKILLS
A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
- manoeuvers wheelchair over a variety of surfaces and in various situations.	Have student practise the following: - revolutions (left or right) - through doorways. - opening/closing doors - over thresholds - up/down curbs - various surfaces, e.g. carpet, grass, gravel.	
	Provide opportunity for the student to be independently mobile in as many situations and environments as possible.	
	Make skills functional, e.g. training to get to lunch, snack time, favorite activity, and reinforcing. Make it fun, e.g. games, races, chases.	
Walks with support.	Have student cruise along a solid large object, using any part of the body as support, e.g. forearms, chest, hands. Initially provide assistance to the student to shift weight and move the leading foot. Support the hips.	Sofa, large trunk, coffee table, bed, bookshelves.
	Place toys, stimulating objects on the table top to encourage the student to move towards them.	
	Provide a large solid object as initial support, e.g. sofa, then a lower open object, e.g. coffee table, and finally a wall.	
	Encourage the student to push a heavy weighted object, before he begins to walk with light objects, or unassisted.	Chair, wheelchair, weighted push wagon.

MOTOR SKILLS
A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Provide assistance at the shoulders, waist or hips, if necessary.	
	Stand behind the student and support him with a towel around his chest.	Handling the Young Cerebral Palsied Child at Home.
		
	Initially support the student from behind, either at the waist, hips or shoulders to elicit correct movements.	
	From behind, place arms under the student's shoulders, with palms up. Have student push down on instructor's hands as he walks, e.g. using them as if they were crutches.	
	Kneel or stand in front of the student and have him place his hands on instructor's shoulders for support as he walks.	

MOTOR SKILLS
A. Gross Motor

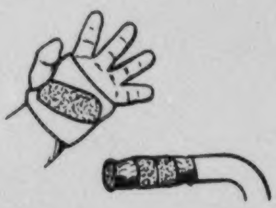
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Place a favorite toy or person in front of the student to encourage him to move towards it.	
	Provide protective helmet for any student who shows signs of poor balance, sudden involuntary movements, strong extensor thrust, or is prone to seizures.	Hawaii Guide to Severely/Profoundly Multi-Handicapped Child.
	Stand facing the student, grasp his hands and provide support as he walks towards you.	
	Move to standing beside the student, hold one hand and walk with him.	
	If desired, have student use a walker, with castors, to gain confidence in walking.	
Walks independently.	Gradually withdraw support until the student is able to walk independently and with safety.	
	Note: The student must develop a spatial awareness of his body in his environment, i.e. he does not walk into or try to walk through an object. Simple obstacle courses which require the student to negotiate objects, stop, turn, etc. are beneficial. Make walking an enjoyable time, e.g. at meal time, game time. Provide positive verbal reinforcement for achievement.	

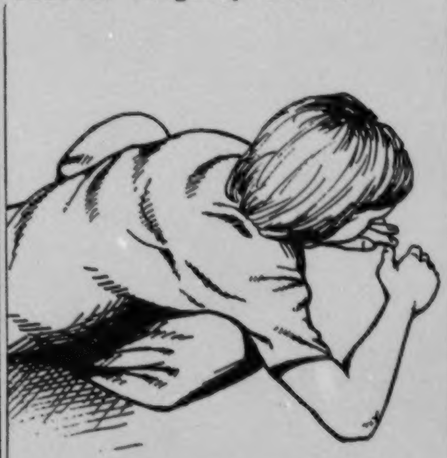
MOTOR SKILLS
A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Have the student walk between two pieces of masking tape placed parellel on the floor.	
	Encourage the student to walk while pulling a toy.	
	Have student walk on a variety of surfaces, e.g. carpet, linoleum, grass.	
Climbs stairs.	1. Crawling	
	a. Upstairs Note: Starting position for following methods is student kneeling with both hands on step and both knees on the step below.	
	Place one hand on next higher step, then the other hand, then move one knee, then the other knee.	
	Place one hand and the opposite leg on a high step, then follow with the other arm and leg.	
	Raise one knee to the same step as hand, and life same hand forward to the next higher step; repeat for the other hand and knee.	The Teaching Research Curriculum for Young Mentally Retarded Children.
	b. Downstairs Note: The safest method is for the student to crawl down backwards. Initially turn the student if necessary. Then encourage him to do this independently.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Reverse upstairs procedures for student coming downstairs. Have student sit on top stair with both feet on stair below, use hands to push his bottom over edge, at the same time sliding his feet to the next stair. Repeat this process to the end. Encourage the student to practise on a variety of surfaces, e.g. carpet, linoleum, wood and concerete. Note: Initially begin with a small stair (10 cm rise is preferable). Progress to a standard stair. Add more stairs depending on the number required in the home and school environments.	
Runs.	Begin by having the student push an object, e.g. wheelchair. Have the student imitate you while walking beside him, holding his hand if necessary, and gradually increase the pace. Teach the student to have control over his movements, e.g. start, stop and turn; also teach when running is suitable to the situation. Incorporate running into games and activities, use music.	

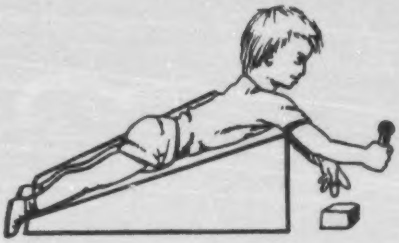
MOTOR SKILLS
A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Rides a tricycle.	Note: Pre-requisite for riding a tricycle is that the student has good sitting balance, and adequate strength to push the pedals.	
	If the student is unable to use an ordinary tricycle, adaptive ones are available. Consult with an occupational- or physio-therapist.	
	Initially tape or tie the student's feet to the pedals if necessary. Remove support as the student gains control.	Instructional Programming for Handicapped Students, p. 674 - 5.
	If the student has difficulty holding on to the handle bars, use velcro mitts. 	Handling the Young Cerebral Palsied Child at Home, p. 199.
	Gently push down on the student's knees in an alternating pattern.	
	As the student masters the skill of moving forward, stand behind the tricycle and direct movement to the right or left, then in circles, and finally backwards.	
Develops mobility in water: - enters the water - moves in the water - exists from the water.	See Recreation, A. Water Activities. Provide assistance if necessary.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
3. Strength and Endurance The student:		
Raises head from face-lying position (prone).	Place visual and/or auditory stimulus to the front of, or above the student's head. Lift the student's head, from under the chin or by the forehead, and gently release it intermittently, gradually increasing the periods of non-support. (Care should be taken if the student is floppy.) If the student is floppy or spastic, position him over a towel or bolster. Stimulate extension of the head and upper trunk by stroking your fingers down either side of his spine, patting his bottom, and rocking or rolling the bolster slightly forward. 	Mobile, bell, chimes, toys, mirror, food. The Teaching Research Curriculum for Moderately and Severely Handicapped. Towel, bolster, large beach ball.
Turns head to side, in prone position.	Place visual and/or auditory stimulus to either side of the student's head.	Mobile, bell, chime, toy, morror, food.

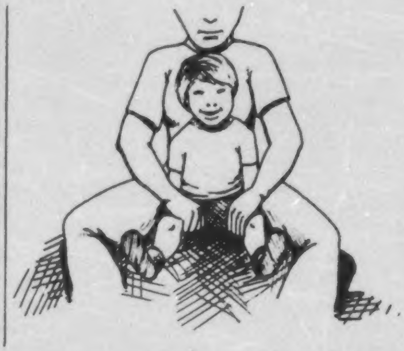
MOTOR SKILLS
A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Touch the side of the student's face, to indicate which direction to turn.	
	If the student is floppy (lacks muscle tone) or spastic (tight muscles), position him over cylindrical support.	Towel, bolster, large beach ball.
Raises up on forearms with head lifted.	Place the student prone on the floor in face lying position.	
	Provide physical assistance, at the shoulders, then at the back of the neck and chin; encourage the student to lift his head and shoulders off the floor and prop his upper trunk on elbows and forearms. Gradually reduce assistance until the student is able to obtain and maintain the position for 1 - 2 minutes.	
	Work in front of a morror, or use brightly colored interesting toys to gain the student's attention.	Mirror, toys.
	Place students who have developed some head control over a wedge. Make sure that the student can comfortably reach the play area. If he has difficulty, place the toys on an upturned box.	

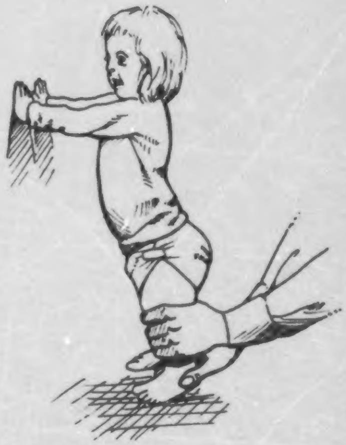
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Raises up on extended arms with head lifted.	Use strategies as for previous objective. Encourage student to extend his elbows; initially assist by holding at the elbows.	
Lifts legs alternately from a prone position.	Place student prone on the floor/gym mat. Raise one leg, with knee extended, then lower it, repeat with other leg. Provide encouragement. Note: This strengthens hips, legs and back.	
Raises head in midline from a supine position.	Place the student on his back. Support at the head, neck and shoulders (shoulders rolled forward), until the student maintains head control when pulled to a sitting position. Then, support at the neck and shoulders, followed by support at the shoulders only.	The Teaching Research Curriculum for Moderately and Severely Handicapped. Foam wedge, incline board.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	If necessary lift student from an inclined board or foam wedge; first with an incline of 60%, then 45%, then 30%, and finally from floor.	
	Use eye contract or an attention getting toy to stimulate and reinforce these movements.	Toys.
	Gently pull the student to a sitting position by holding his hands. (The student should be able to maintain head and upper trunk).	
	Note: When pulling the student up to sitting, begin by tugging gently until he resists the pull with his arms, before continuing to pull. (This avoids injury to the shoulder joints).	
	Stabilize the student's bottom so he does not slide during this activity.	
	Gradually reduce assistance. Provide encouragement to student to raise his head independently, to look at/ reach for a toy, food, person.	
Raises buttocks off the floor with knees bent.	Guide the pelvis up by lifting from underneath the student's buttocks with your hands. (This position is common when changing pants or diaper).	

MOTOR SKILLS
A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Does sit-ups.	Begin by stabilizing student's feet, with his knees slightly bent. Encourage him to raise his head and upper body from the floor, then return to a supine position.	
Sits with head and trunk unsupported, in long sitting, cross-leg sitting and chair sitting.	Support the student from behind, at the hips and/or thighs, using your body to keep the student's body slightly forward. Use hands to pull the student toward you and to keep his legs apart.  As sitting balance improves, withdraw support. Engage the student in an interesting activity to maintain his position and increase the time he can sit unsupported. Place toys to both sides of the student to encourage reaching and regaining balance, and trunk rotation.	Gym mats, beach ball, toys.

MOTOR SKILLS
A. Gross Motor

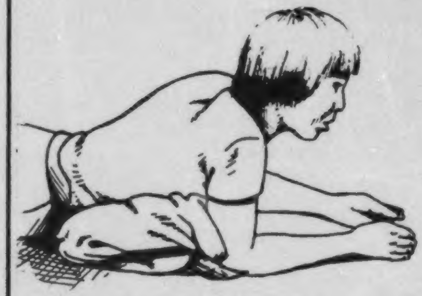
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Assumes a 4-point kneel position.	Place student in face-lying position. Raise his chest and abdomen from the floor with arms extended, then have him bend and raise his hips, to assume a 4-point kneel position. Provide the student with an interesting toy or activity to look at while he maintains this position.	
Maintains a 4-point kneel position with head up, arms straight and buttocks in line with knees.	Encourage the student to remain in a 4-point kneel position from 2 seconds to 2 minutes.	
Holds a half-kneel position.	Initially kneel in front of the student and hold both hands. Use a chest-high table/support to allow the student to hold on to if necessary. Fade assistance by having the student hold one of your hands then have him do it with no support.	
Stands and walks on tip-toes.	Have the student remove his shoes and socks before starting. Have the student face the wall, holding or touching it for support. Assist the student to lift his heels off the floor. Provide further assistance by lifting the heels with one hand while holding the knees straight with the other, from behind. Cue the student to stand on tip-toes.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	To have the student walk, stand in front holding the student's hands. Demonstrate, then pull the student up and forward so that he walks on tip toes.	
Walks on rough surfaces.	Have the student practise walking on rough/smooth surfaces, e.g. grass, gravel, thick carpet. See Mobility section.	
Walks up and down stairs.	Note: Stairs should have a hand rail and be wide enough to accommodate two people side by side. Upstairs Have student walk up stairs holding onto the hand rail with one hand, and instructor's hand with the other. Have him move one foot up one stair and bring the other foot up to the same step. Repeat procedure. Progress to the student holding the hand rail only, then walking upstairs with no support. The next progression is for the student to walk up stairs alternating feet, using the hand rail and instructor's hand for support; then hand rail only and finally independently.	

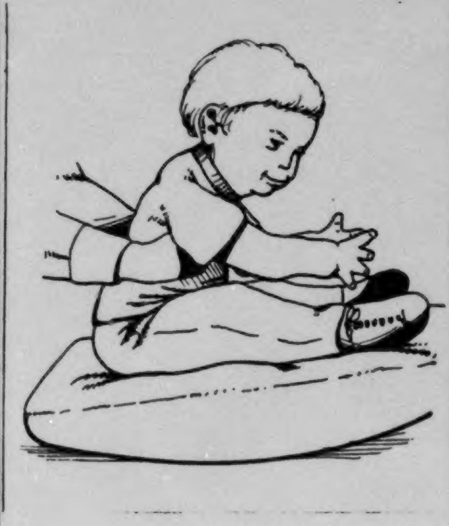
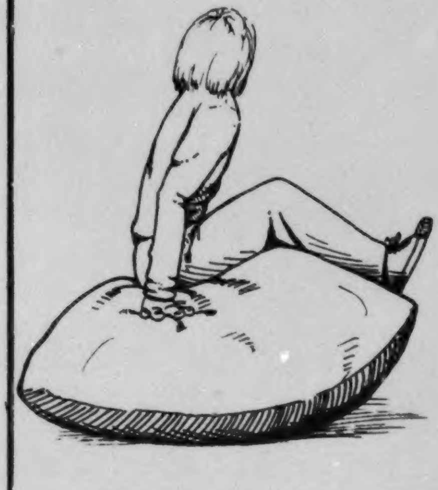
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Downstairs Reverse the previous strategies to assist the student to walk downstairs.	
Develops upper body strength:		
- pushes	Have the student push weighed objects, like doors. Push (or pull) the student as he grasps the door rather than pushing (or pulling) the door. Have the student push a trolley, wheelchair, bike, etc.	
- pulls	Have the student pull weighed objects (as above). With both of these, vary the situations as much as possible so that the student pushes/pulls objects while bending over, e.g. wagon at waist level, with objects that are light or heavy, regularly shaped or awkward, etc.	
- pushes/pulls and holds	After pushing or pulling a door open, have the student hold it open either by using his entire body weight and standing in front of the door or just holding the door back with two hands.	
- picks up	Have the student pick up objects from a variety of heights, e.g. from the floor, from table height, from shoulder height. Start with objects that are light and easy to grasp.	

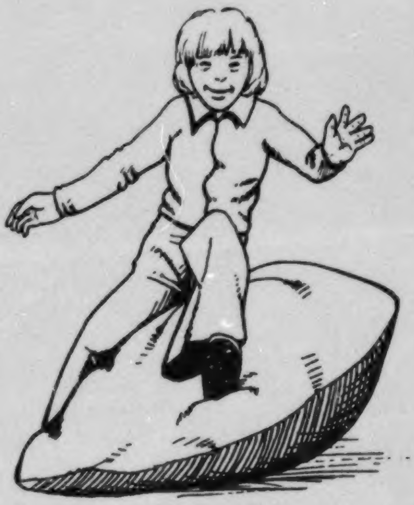
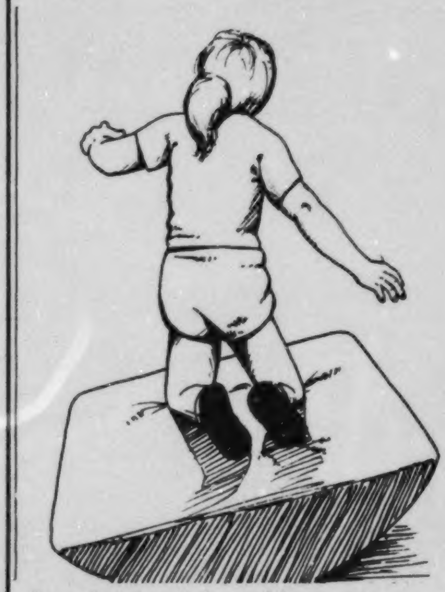
MOTOR SKILLS
A. Gross Motor

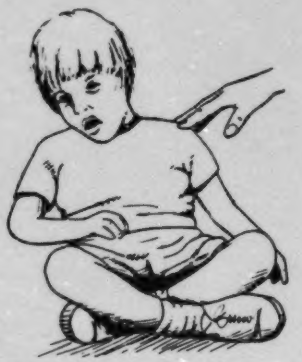
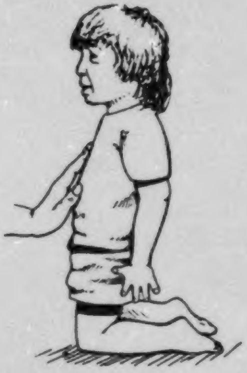
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
- carries	Include a variety of carrying techniques; have student carry objects with arm at side, e.g. lunch kit, pail, record player; at waist height with two hands, e.g. box; or one hand, e.g. shopping bag; at chest height with two hands, e.g. box. Try a variety of objects, sizes, etc. and have the student decide which is the most effective way of carrying. Be sure to have students carry objects considered breakable.	
- places	After picking up, holding or carrying, provide a variety of situations in which to place that object, e.g. the floor, at table height, at chest height or above.	
- moves an object to the side	Provide opportunities for the student to rotate his trunk while holding an object, e.g. from one table on the left to the right. Provide opportunities to practise these skills in daily activities. Use a stabilizer, exercises like push-ups, chin-ups, wheelbarrow walk or medicine balls to help develop upper body strength.	
- throws.		

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
4. Balance and Coordination The student:		
Maintains balance while on a moving (rocking) surface:	Note: Balance reactions develop when a child is pushed, pulled, or moved so that he is off balance. He should then adjust his body so that he will not fall and/or extend his arms to protect himself if he does fall. In prone, sitting and kneeling, encourage student to maintain his balance on a moving surface. Move surface slowly and gently in all directions. Use playground equipment (swings, teeter-totters and meery-go-rounds), wagons and sleds to provide opportunity to develop balance skills.	
- lying prone		
- lying prone, with support, on forearms		

MOTOR SKILLS
A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student: - sitting cross-legged - long-leg sitting		
- sitting on a bolster		

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student: - straddling a bolster		
- kneeling.		
Regains balance when pushed, pulled or moved so that he is off balance: - sitting cross-legged - long-leg sitting - sitting in a chair - kneeling - half kneel position (one knee and one foot in contact with the floor)	In sitting, kneeling or standing, gently push the student off balance in all directions (forward, sideways, backwards). Push at shoulders and hips and pull the shoulders and upper arms.	Trampoline with support bar, hammock, rocker (equilibrium) board, 30 cm - 60 cm, bolster, air mattress, large developmental ball, playground equipment.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student: - standing - standing on one foot - standing in water.	 	
Walks over a variety of surfaces, slopes and small obstacles.	Note: Initially the student may need physical assistance and encouragement because of his fear and losing balance. Surfaces Provide the student with the opportunity to walk over a variety of surfaces, e.g. indoors: carpeting, linoleum, foam tile; outdoor: grass, gravel, cement, ice and snow, mud, pavement.	

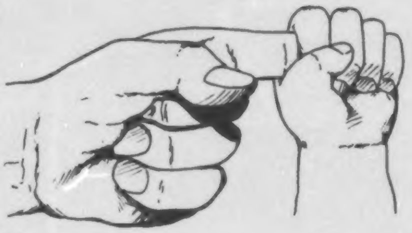
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Slopes Begin with a gradual incline such as a gentle slope on a driveway. Progress to using a ramp. For indoor practice use a foam wedge or a firm piece of plywood, firmly secured.	
	Small Obstacles Provide an opportunity for the student to negotiate obstacles and abrupt surface changes, as in things commonly found out of doors, e.g. rocks, pot holes, cracks in the sidewalks.	
	Balance Beam Present activities that gradually lead up to a balance beam: walking between masking tape lines on the floor; walking on a masking tape line on the floor; walking on a strip of carpet on the floor; walking on a 5 cm x 10 cm beam laid on the floor; walking on a wide, low balance beam of contrasting color.	Masking tape, strip of carpet, 5 cm x 10 cm beam, balance beams of different widths.
	Vary the height of the step.	
	Have the student jump over a line on the floor, or into a square or circle marked on the floor, and have him jump into and out of it.	
Maintains still balance in the water while: - standing - kneeling - sitting - lying.	See Recreation, A. Water Activities.	

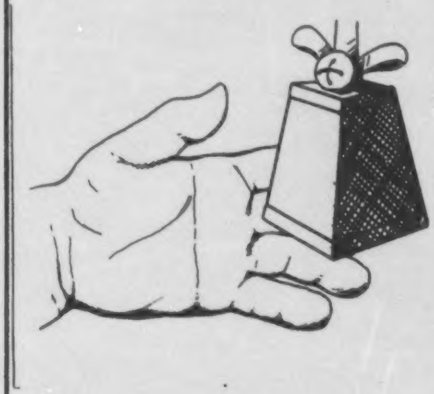
MOTOR SKILLS
A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Crawls, using a reciptocal pattern.	See 2. Mobility.	
Walks with normal timing and arm swing.	Note: The student should transfer weight in both a side to side, and front to back position; opposite arm should swing with opposite leg. Face student, hold a pair of wooden rods with the student holding the other end. Walk to rhythmic music and move rods to make sure his arms swing. Make sure student demonstrates usual heel strike, foot flat, then toe push off in walking. Ask student to imitate, use mirrors, walk up and down ramps, teach foot placement in ladder placed on the floor.	Music, rods, ladder, ramp, mirror.
Demonstrates eye-hand coordination.	Provide the student with a variety of activities to develop eye-hand coordination. Include functional skills and activities, e.g. leisure skills (throwing or catching a ball); daily living skills (dressing, eating); fine motor skills.	
Demonstrates eye-foot coordination.	Have the student kick a ball, either stationary or moving. Provide other activities, e.g. place brightly colored foot prints on the floor and have the student step on each.	

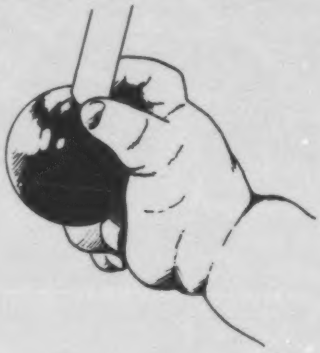
MOTOR SKILLS
A. Gross Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Demonstrates eye-hand-foot coordination.	Have the student clap hands and stamp feet in time to music, put on his boots, step on a garbage can pedal, or grab a rail and step (as in boarding a bus or getting in the tub).	

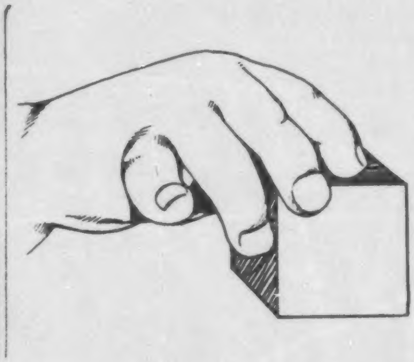
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Grasps objects when presented (grasp reflex).	Note: The student should be either in a supine, sitting, or side-lying position. Present an easily grasped object and place it in the palm of the student's hand.	Rattle, long beanbag, suspended rattle, bell with handle, teething ring.
		
	Note: a) The object should be long, thin, noisy, and/or bright with either a pliable or hard handle section. b) The object should be small enough that it fits into the palm of the student's hand, but not so small that it can be swallowed.	The Teaching Research Curriculum for Moderately and Severely Handicapped.
Reaches out toward an object with hand open.	Note: The student should be in a supine, sitting, or side-lying position.	
	Present a suspended object within the field of vision and encourage the student to reach, touch and push the object.	Pop-up toys.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Encourage the student to use both right and left hands, or both hands to make contact with the toy.  Note: The student may still use a fisted hand; encourage him to open it. If his hand does not open easily, or is not observed to open spontaneously during play, contact an occupational therapist.	Banging, pushing or pressing action toys.
Demonstrates reach and crude grasp.	Note: This may be presented to the student while he is in a prone position, if he is able to bear weight on forearms, in supine or in sitting position.	
	Use the same strategies as for "Reaches with open hand", placing emphasis on grasping the object.	Foam toys, plastic toys, wooden blocks, stuffed toys, bean bags.

MOTOR SKILLS
B. Fine Motor

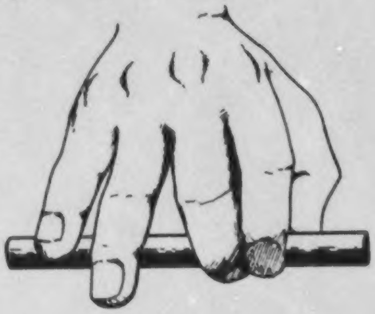
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Encourage the use of both left and right hands. 	
Reaches for, grasps and releases an object.	Position the student in prone; if able to bear weight in supine or in sitting.	
	Use the same strategies as for two previous objectives, expecting the student to reach directly, grasp well with a full hand and palm, and release at will.	Squeeze, throw, take-apart stack or placement toys.
Brings hands to face to look at.	To develop student's awareness of his hands and arms: play in front of mirror; rub arms and hands lightly with textures, e.g. terry cloth, to raise the level of touch awareness. Note: Be alert for signs of defensiveness to touch stimulation. Some students may not experience touch as a pleasureable sensation; this prevents them from learning through this sense. Should you suspect this, consult an occupational therapist.	A Comprehensive Handbook for Management of Children with Developmental Disabilities, p. 156.

MOTOR SKILLS
B. Fine Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Swing the student's arm in and out, up and down, pat-a-cake etc., to raise the level of awareness of movement of position in space.	
	During water play and bath time, splash water with the student's hands, and swirl his hands through the water to increase senses of touch and movement.	
	Tie brightly colored objects or noisy objects to student's wrists.	
	Place mobiles over the bed, or chair, so he will look at his hands as he reaches for the toy.	
Uses thumb and all fingers to grasp.	Encourage the student to pick up an object by using the tips of all fingers and thumb.	Large stacking, take-apart, push, action, or construction toys.
	Make sure that the student uses his finger tips to grasp, rather than his palm.	
		

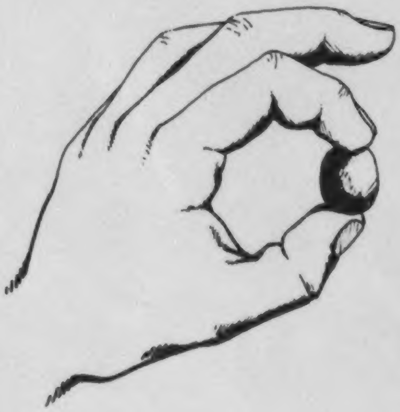
MOTOR SKILLS
B. Fine Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Note: The normal sequence of the development of grasp, is from: a) a crude whole hand and palm grasp, to b) thumb and all fingers, to c) thumb, index and middle fingers, to d) thumb and index finger on a small object, e.g. 2 cm. diameter, to e) thumb and index finger on a tiny object, e.g. raisin.	
Places hands together as he plays.	Encourage the student to bring both hands together during play activities, e.g. clapping games, banging musical instruments.	Tambourine, cymbals.
	Use activities which encourage tactile exploration of both hands.	Hand lotion, talcum powder, finger/body paint.
	Note: Be sure to use non-toxic materials.	
	Use modelling, e.g. clapping, or "hands-on" assistance.	
	Have student practise in the following positions: prone, sitting, side-lying.	Prone board.
Holds object with two hands, e.g. cup.	Present the object at the mid-line of the student's body. Use an object large enough that the student cannot grasp it in one hand.	Drinking cup, shoes, socks, pants, toys, books, balls.
	Incorporate this objective into functional activities, such as feeding, dressing and carrying objects.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Note: If the student neglects to use one hand consistently, contact a physio- or occupational therapist.	
Uses thumb, index and middle fingers to grasp.	Encourage the independent use of a few fingers and the thumb. Do this by presenting the student with smaller objects which require a finger grasp.  Note: This is a necessary skill important to the development of finger feeding, e.g. holding a sandwich.	Small, stacking, manipulative, take-apart, construction and creative toys.
Transfers objects from hand to hand.	Encourage the student to transfer objects from one hand to the other, making sure that the object is appropriate to the size of the student's hand	
	Example: Present a wooden peg to the student's right hand, present a second peg to the same hand; this requires the student to either drop the first one, or transfer it to the left hand.	Blocks, small toys, pegs.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Have student transfer soap and wash cloth when washing and drying hands.	
	If student shows preference for one hand, present object to non-preferred hand.	
	Note: a) This activity is often seen most readily at meal time, when a second food is presented; or at play time when two desirable toys are presented. b) The transfer of objects should go from right to left, and left to right.	
Feels and explores objects with hands.	Present a variety of textured objects, initially using "hands-on" assistance to teach the student to use his sense of touch.	Carpet, foam, flannel, wool, steel for wool, sand paper.
	Capitalize on natural situations to teach this objective, such as: - play: bean bag and wooden block; - meal-time: fruit and popcorn; - self-care activities: soap and towels; - dressing: soft sweater and leather shoes.	Gauze, cotton batting, water, oatmeal, cornmeal, puffed wheat, pudding with cereal mixed in, finger paints, macaroni.
	Note: a) Care should be taken to use non-toxic materials at all times, as students will usually explore objects using their mouths, before using their hands.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	b) Some students may not experience touch as a pleasurable sensation; this prevents them from learning through this sense. Should you suspect defensiveness to touch, consult an occupational therapist.	
Feeds self finger foods, e.g. biscuit.	See Self Care, Eating. Develop definite procedures which signal to the student a change in activity, e.g. from play to meal time.	
	Begin with a long, narrow biscuit which is easy to grasp, does not crumble easily, nor break off in large pieces.	Arrowroot cookies, bread crusts.
	If the student does not readily finger feed (does not accept food if it is not presented on a spoon), begin by using syrupy foods, e.g. honey, pudding. Place it on the student's fingers and encourage him to lick it off.	
	As hand to mouth coordination develops, add small pieces of solid food, e.g. cookies, cheese, marshmallows.	
Bangs objects.	Use modelling and games, e.g. drums, and "hands-on" assistance, to demonstrate cause and effect.	Drums, blocks, toy hammer.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Encourage the use of left and right hands.	
Demonstrates index finger, thumb in opposition, e.g. to pick-up a raisin.	Initially place object between the index finger and thumb. Assist the student to maintain a neat pincer grasp. Note: The student should progress to being able to pick up the object and maintain the grasp for several seconds.	Holding, construction, creative, placing, and assembling games.
	Use an object small enough that it requires the precise use of the tips of the thumb and index fingers. Observe the student's grasp to determine whether the thumb is placed on the tip of the index finger, i.e. opposition (correct); or whether the thumb is placed at the side of the index finger, i.e. scissoring (incorrect). 	Food, e.g. raisins, small marshmallows, seedless grapes, cereal.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Places one object after another into large container.	Encourage the student to place several objects into a container, during clean-up, play-time, e.g. garbage in waste basket, dishes into the sink, blocks in their box, crayons into a container. As the student's coordination develops, present him with a smaller container.	Toys, round and square containers.
Stacks objects.	Note: A pre-requisite to this skill is that the student has sufficient control to release an object voluntarily, e.g. he is able to place the object before releasing it.	
	Begin by using large 10 cm square cloth or foam blocks, which are easy to hold and stack. Progress to 5 cm plastic blocks, dishes etc., as control improves. Begin by having the student stack two objects. Use modelling and "hands-on" assistance. Use competition, e.g. who can build the tallest tower. Use a variety of stacking objects, e.g. stacking rings, nesting cups, dishes, cans.	Dishes, cans, boxes, 10 cm cloth and foam blocks, 5 cm plastic blocks, stacking rings, nesting cups.
Uses crayons and pencils.	Note: Pre-requisite skills are: sufficient hand strength and coordination to hold a crayon and control its movement.	

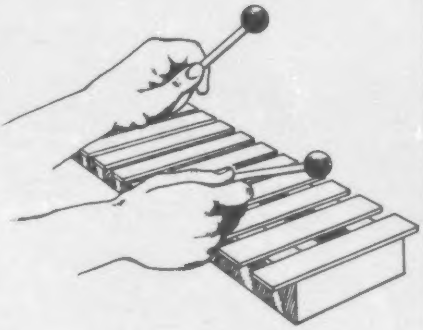
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Begin by using finger painting, with student using whole hand movements.	Finger paints, playdough, sand.
	Assist the student to trace over outlines of shapes on various textures; or have him follow along behind the teacher's finger in substances such as playdough or sand.	
	Present large implements to the student, e.g. paint brush, magic marker, crayons, chalk. Encourage free form drawing, lines, circular scribbles, coloring etc.	Paint brush, crayons, chalk.
	Note: a) At this stage the student will probably grasp the implement in his fist. b) Flexible rubber tubing may be used to increase the size of the implement. This is often beneficial for students with poor grasp. Foam rubber may also be taped around the pencil to increase its size. c) If the student has difficulty maintaining a grasp on a large pencil, or controlling its movements, consult an occupational therapist.	
Turns a door knob.	Note: Pre-requisite skills: sufficient range of movement to rotate the forearms, i.e. palms up, palms down.	
	Physically assist the student to grasp a door knob and encourage him to turn it at least part of the way, before completing the task for him. Gradually reduce the assistance given.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Screws and unscrews lids of jars.	Begin with having the student unscrew the loosened lid of a jar approximately 5 cm wide. Give "hands-on" assistance to demonstrate the movement required, if necessary. When student can unscrew the lid, demonstrate and give assistance to screw the lid on the jar. Progress to larger lids (10 cm) and then to small ones. Note: a) A reinforcement, e.g. raisin, can be placed inside the jar to encourage the student to open the lid. b) An opportune learning time for this skill is lunch time when opening the student's thermos. c) If the student is hemiplegic (minimal use of one arm and leg) encourage him to stabilize the jar against his trunk with his affected hand (preferably) or his forearm.	
Turns pages of a book.	Begin with toddler books with cardboard pages, then use cloth books, regular books and finally magazines.	Cardboard books, cloth books.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Assist the student to open the cover of the book; progress to turning several pages at a time, then individual pages.	Magazines.
Places small objects in small openings, e.g. button in hole, key in keyhole.	Provide opportunity for student to mail letters, put coins in pay phone, keys in locks.	
Draws with pencil in fingers.	Encourage the student to hold the pencil between the thumb and 3 or 4 fingers, with the pencil vertical to the paper.	
	Make large outlines of shapes on the blackboard, easel, or art paper, and encourage the student to color within the boundary. Gradually reduce the size of the outline.	
Uses one hand to hold something and the other to manipulate.	Demonstrate and assist the student to hold an object while he manipulates it with the other hand. Use functional and household tasks to teach these skills, e.g.: - mixing in a bowl - washing dishes - folding paper - stirring cookie batter.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Note: If the student is hemiplegic and has proven completely unable to hold an object while using his other hand, provide a non-slip mat that can be purchased commercially, or a wet facecloth placed under the object, to prevent slipping.	Blue non-slip mat (Dycem).
Uses a pencil/crayon with correct pencil grasp.	Have student demonstrate a functional, controlled pincer grasp, i.e. tip of index finger, tip of thumb grasp, before holding a pencil between the thumb and the second and third fingers. Encourage correct positioning of the pencil so that the pencil is held at a slant to the paper, rather than vertically. If the student has difficulty using this grasp pattern, practise the following activities: - pick up playing cards - deal playing cards - open clothes pegs and place them on edge of cardboard box - place small pegs into peg board - place marbles on chinese checker board - paste and glue activities - pennies in a piggy bank.	

MOTOR SKILLS
B. Fine Motor

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Uses simple hand tools.	To increase strength and coordination of the hands and fingers, demonstrate and assist in the use of functional hand tools such as: - tongs - kitchen timer - rotary eggbeater - scissors.	
Uses two hands, each performing separate functions.	Assist the student to develop coordination of both hands in a natural situation, e.g. playing xylophone, winding thread around a spool. 	

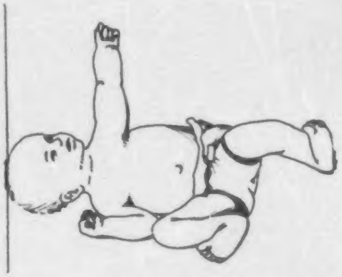
MOTOR SKILLS

C. Special Considerations

1. Reflex Activity

Reflex movement patterns are movements that are not voluntarily controlled by the person. They are mechanical, automatic reactions to environmental stimuli such as sound, touch or position of the hand.

All babies are born with several normal reflex movements called Primitive Reflexes, e.g. when a young infant's head is turned to either side, the arm and leg on the free side straighten, and the opposite arm and leg flex at the elbow and knee. These reflexes protect the infant and promote survival. The infant can usually move independently from whatever position the reflex causes.



Asymmetrical Tonic Neck Reflex (A.T.N.R.)

As the infant grows and develops, most primitive reflex movements gradually diminish and are replaced with more complex, voluntary movement patterns. However, damage to the central nervous system may result in a student retaining certain primitive reflexes after infancy or exhibiting abnormal reflexes.

The student with retained or abnormal primitive reflexes cannot move independently from the position the reflex creates. This seriously interferes with efficient movement, e.g. if after infancy a student's arms and legs continue to flex automatically and extend when the head turns, it is difficult to accomplish tasks such as to bring the hand to the mouth for eating, or grasping an object while looking at it. The effect on the student's posture will be great, as he will need assistance to constantly change position. The long term results of the persistence of these reflexes can mean:

- dislocation of hips and spinal deformities
- great difficulty or inability to roll over
- inability to bring both hands to midline
- dependence in eating and walking.

Any student with delays in motor development should have a developmental reflex test, and an appropriate program of inhibition and facilitation initiated. This testing and program designing should be carried out by an occupational- or physiotherapist. By using correct positioning and handling methods the student will be more able to feed himself, roll over, etc.

Reference: Value Based Skills Training Curriculum, M.C.R.I. University of Nebraska Medical Centre.

2. Range of Motion

All joints in the body have a normal range of motion through which they move by normal muscle activity in the absence of any congenital joint problem, or in the absence of existing joint disease. The physically handicapped student by virtue of the impairment, namely, abnormal muscle tone and/or muscle weakness, is often unable to exercise all of his body's joints routinely through their normal range of activity. The combination of this inability, as well as prolonged posturing in any given position together with the effects of the pull of gravity on the body, may result in the gradual but permanent acquisition of various deformities of the joints of the limbs and/or vertebral column.

Many of these deformities are preventable if the problems are identified and normal joint movement carried out passively in the identified areas. This process of applying exercise passively to a joint in order to keep it freely moving within its normal range by movement of the joint and the structure surrounding and acting upon this joint, namely muscles, tendons, ligaments and capsules, is called Range of Motion Exercises.

These exercises should be carried out daily on any student with serious strength and mobility problems. The problem may be minor, requiring attention to any one or two joints, or major, involving multiple joints. Failure to provide this care may result in unnecessary future surgery, bracing, or the loss of ability to acquire a functional skill such as self-feeding or walking.

Joints which frequently need care and attention are the:

- head and neck
- shoulder blades
- shoulder
- elbow
- forearm
- wrist
- fingers
- thumb
- hip
- knee
- ankle
- mid foot
- toes
- back and lower spine.

In order to assess the needs of a student, it is essential to obtain the services of a qualified physiotherapist and/or occupational therapist to identify the existing or potential problem, and to draw up and demonstrate a range of motion exercise program. Where regular or consultant services of a physiotherapist are not available, these can be obtained frequently on a consultative basis from the Home Care Team of a Public Health Unit, or the Physiotherapy Department of the nearest hospital.

Due to the variety of problems present in the physically disabled student, it is strongly suggested that every effort be made to obtain the input of a physiotherapist for range of motion exercises. The techniques for the different joints must be demonstrated and practised so that no harm is done, and various techniques learned for managing spasticity of muscles and for greater ease in the passive exercising of joints.

3. Positioning

Positioning includes handling and moving the physically disabled student into static postures. It usually implies the inability of the student to move out of this position by his own effort.

Careful handling of the student while positioning him can result in various therapeutic effects, including:

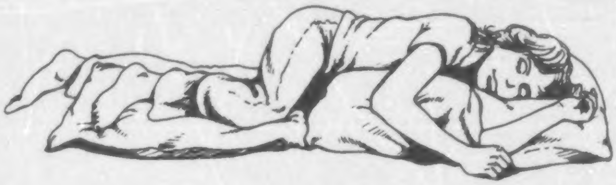
- reduction of spasticity of abnormally high postural tone
- facilitation of tone normalacy in the student with abnormally poor or low muscle tone
- sensory stimulation and environmental contact.

Proper positioning includes correct or symmetrical alignment and adequate stabilization to maintain a safe and comfortable position.

The five basic positions are:
- side lying
- prone resting
- prone developmental
- back lying
- sitting.

(Note: Please refer to the Special Education Handbook section, "The Physically/ Medically Handicapped Student" for further information on positioning.)

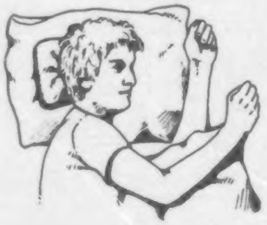
a. Side Lying



Side lying is one of the better lying positions since it allows for use of the hands and inhibits undesirable posture patterns.

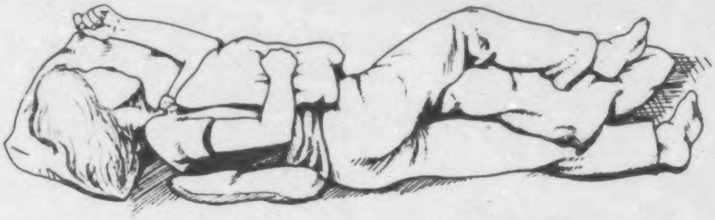
Strategies:

Position the student on his side (center the student's head in midline and support it with a pillow that is thick enough to maintain the head parallel to the supporting surface). If the student exhibits extension patterns, tilt the head forward slightly and support the back of the head.

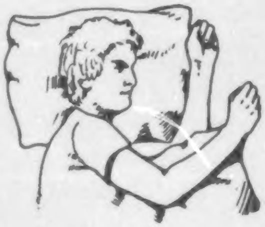


3. Positioning (continued)

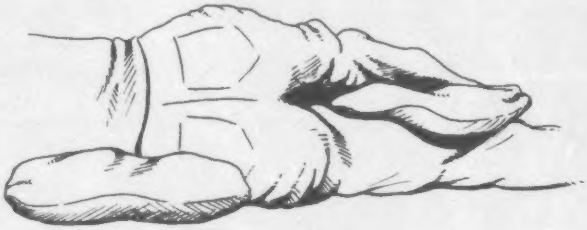
Align the trunk symmetrically so that the spine is straight. Place a firm support 5 cm - 8 cm from the student's back. With one hand on the student's shoulder and one on the hip, gently roll the trunk towards the support until the student's back touches it (the bottom shoulder should be slightly forward). Place a pillow at the chest/waist for balance.



The bottom arm should be resting on the lying surface, in a forward position. The top arm can then rest on the front pillow, also in a forward position. The student's hands should be free.

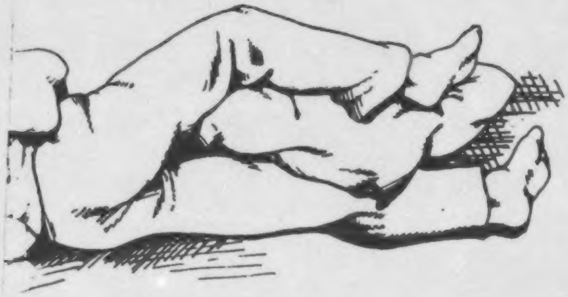


Be sure that the hips are in a symmetrical position. Support at the front and/or back may be necessary if the student cannot maintain a symmetrical position.



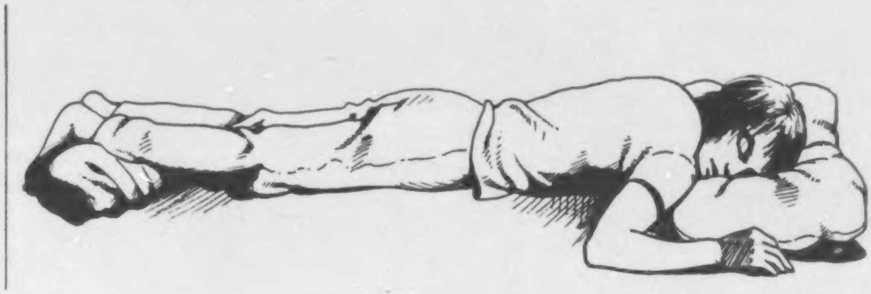
3. Positioning (continued)

Bring the top leg forward with the knee flexed until the muscles relax, i.e. up to 90°. Flex the bottom leg slightly at the knee and place a pillow between the legs. If the bottom leg muscles don't relax, increase flexion at hip and knee. Place a sandbag under the knee to maintain position if the person cannot maintain a flexed knee. Position the feet as close as possible to a 90° angle (to the lower leg).



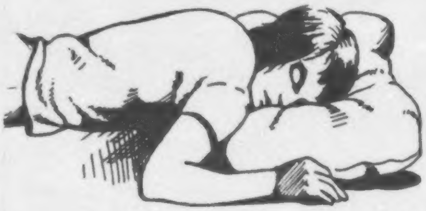
b. Prone Resting

The prone resting position can be used in combination with other positions to provide variety. It should not be used with students who exhibit a total flexion postural pattern (contracted due to hypertonicity).



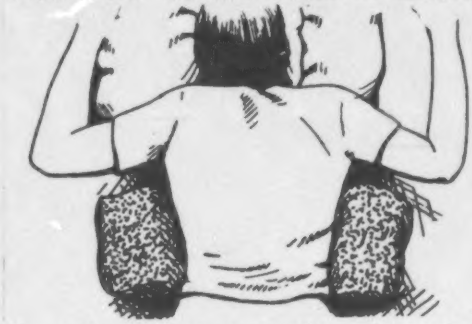
Strategies:

Position the student on his stomach and turn the head to either side. Support it with a thin pillow or pad so that the head is parallel to the lying surface.

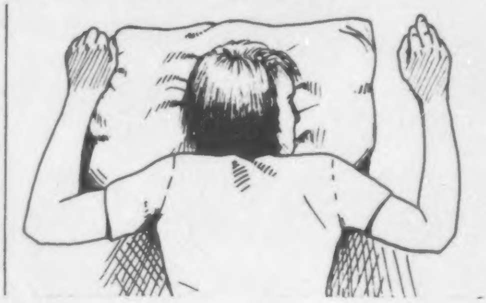


3. Positioning (continued)

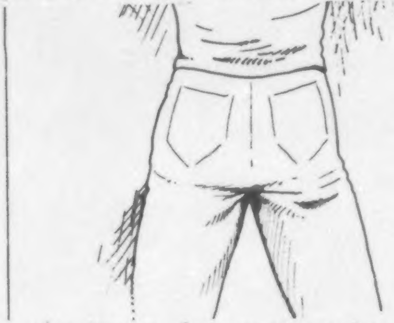
Be sure that the trunk is in a symmetrical position so that the spine is straight. If the trunk tends to curve to one side, align trunk and spine then place sandbags on both sides of the trunk to maintain a straight alignment.



Flex both arms at the elbows and position them at least 15 cm away from the body.

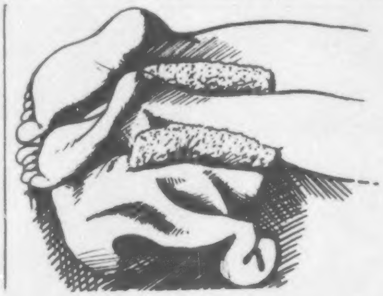


Be sure that the hips are as symmetrical and extended as possible.



Separate the legs at the knees (approximately a hand's span). Place a pillow between the legs if the student cannot maintain this. If legs turn inward or outward, place a sandbag on the side of the leg which the leg tends to turn.

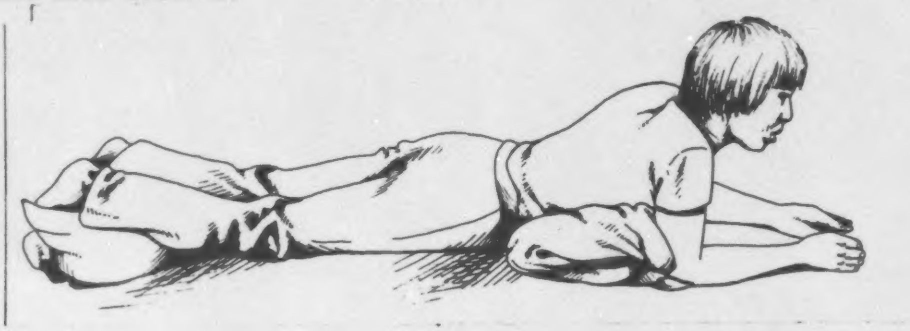
Place a rolled towel beneath the ankles so that the toes are pointing perpendicular to the lying surface. Be sure that the ankles are elevated high enough to prevent pressure on the toes.



3. Positioning (continued)

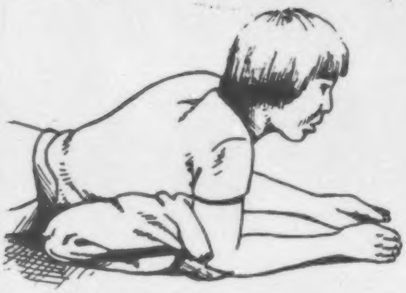
c. Prone Developmental Position (Propped Stomach Lying)

This position is not recommended for use unless under the supervision of a clinical specialist. It can be used with students who are able to bear weight on their forearms and allows for some functional use of hands. It can be used to facilitate head control.

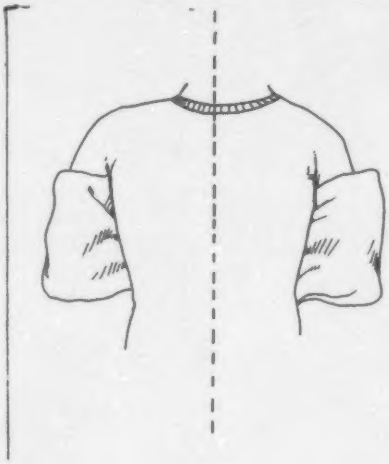


Strategies:

Position the student on his stomach. The head is not supported in this position.

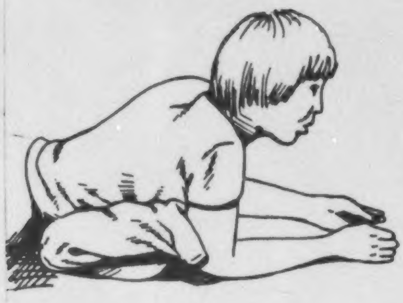


Place a large wedge or firm pillow under the chest and armpits to provide firm support (the high part of the wedge should be 2½ cm less than the distance between the elbow and armpits). Align the trunk symmetrically with the spine straight.

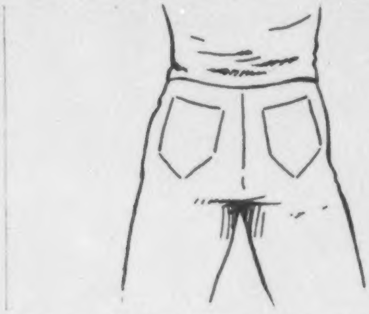


3. Positioning (continued)

Place arms in a supportive position in front of the student, with elbows bent. Elbows and forearms should rest on a supportive surface (pillow). In this position, the body weight will press down on elbows and forearms to maintain the position.

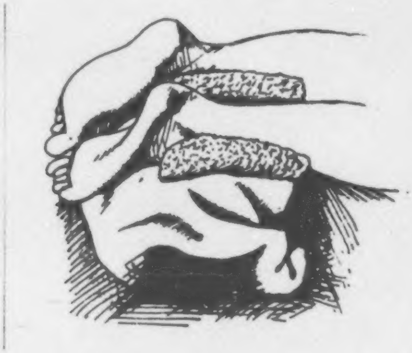


Be sure that the hips are as symmetrical and extended as possible.



Separate legs at the knees (approximately a hand's span). Place a pillow between the legs if the student cannot maintain this. If legs turn inward or outward, place a sandbag on the side of the leg to which the leg tends to turn.

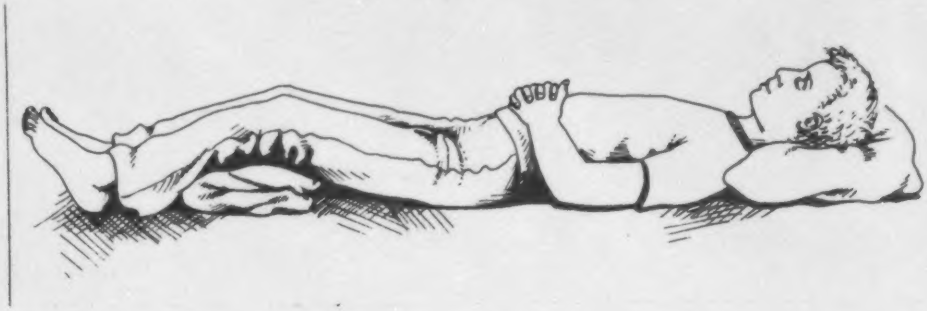
Place a rolled towel beneath the ankles so that the toes are pointing perpendicular to the lying surface. Be sure that the ankles are elevated high enough to prevent pressure on the toes.



3. Positioning (continued)

d. Supine Position (Back-lying)

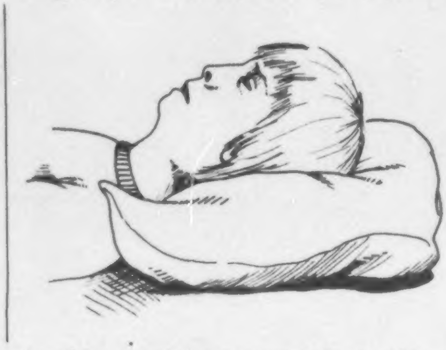
The supine position should be used only for short periods of time. It should never be used when the student is eating or sleeping and should be avoided with students who exhibit extension postural patterns.



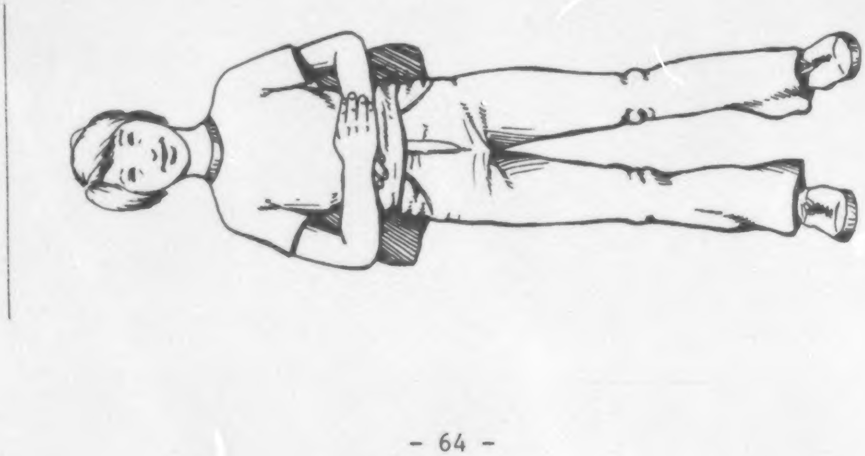
Strategies:

Place the student on his back.

Tilt the head forward slightly. Center it in midline and support with a pillow or cushion.

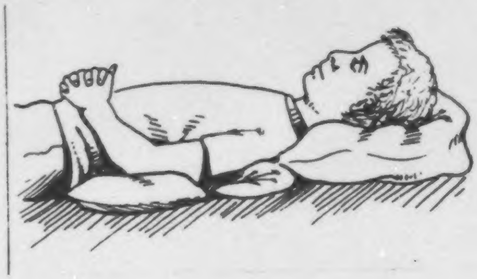


Align the trunk symmetrically, making sure that the spine is straight. Support the trunk with sandbags on either side if the student cannot maintain a symmetrical position independently.

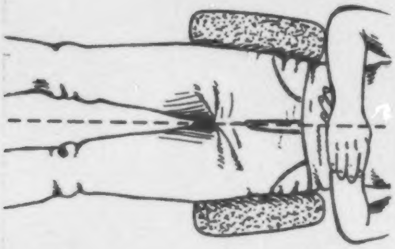


3. Positioning (continued)

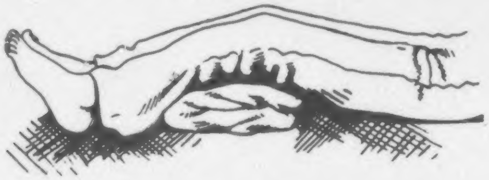
Roll the shoulders slightly forward by placing rolled towels under each shoulder. Place the arms over the stomach so that they are supported by the abdomen. If the student's arms tend to slide off the stomach, roll the shoulders further forward and place a pillow under the elbows.



Be sure that the hips are as symmetrical and extended as possible.



Separate the legs at the knees (approximately a hand's span). Flex the knees slightly and place a rolled pillow underneath. The feet should be positioned as close to 90° as is possible.

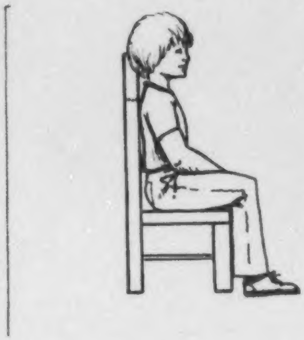


Pillow below the knees is to help inhibit an extensor tone pattern and must not be accepted as a prolonged positioning pattern, e.g. sleeping, as it promotes knee flexion contractures.

3. Positioning (continued)

e. Sitting Position

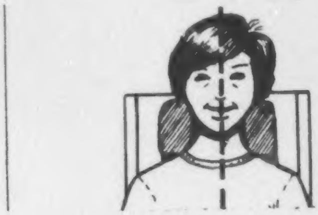
Sitting allows the student the most opportunities for functional movement (other than standing). In order to maintain the correct sitting position, most students will require a special chair which has been adapted, based on individual needs.



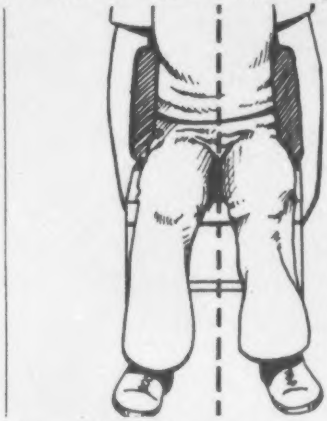
Strategies:

Place the student in his adapted chair or wheelchair.

Be sure that the head is in midline and upright. If the student lacks head control, attach a head-centering cushion at the appropriate height so that it provides support in the neck area.

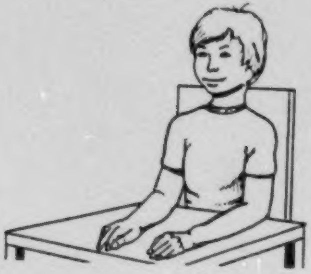


Align the trunk symmetrically, making sure that the spine is straight. Provide stabilization on either side to maintain slignment, if necessary.

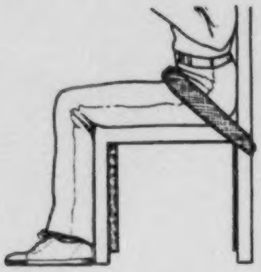


3. Positioning (continued)

Roll the shoulders slightly forward and place rolled towels behind each. Support forearms on a tray such that, when properly positioned, the elbow is bent at a 90° angle. Hands should then be free so that they can be brought together.



Stabilize the hips and thighs so that the weight is evenly distributed over both hips. Be sure that the hips are symmetrical and flexed, i.e. at least 90°. Use seat belt to help maintain the correct position. Attach the belt to the chair at the buttocks, and angle up to cross the hips; do not place across the waist.



Be sure that the seat supports the entire thigh (to within 4 cm from the knee). Flex the knee to 90°.

Position the feet flat on the supporting surface so that the ankles are aligned and flexed at 90°.

If necessary, use stabilization devices to maintain.

4. Transfers

Transfers usually refer to the assisted movement of a person from one position to another. A transfer can either be passive, i.e. little involvement of assistance by the student, or active, student participates in the movement.

For information regarding passive transfers, refer to the Special Education Handbook section, "The Physically/Medically Handicapped Student". For active transfers, refer to the Mobility section.

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Jerard, S., Anderson, L., Glazer, C., and Zaleski, W.A. A Comprehensive Program for Multi-Handicapped Children. Saskatoon: Alvin Buchwold Center, 1980.

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SELF
CARE

INTRODUCTION

The dependent handicapped student should be taught to participate as fully as possible in caring for himself. While it may take time and effort he should be given the opportunity to develop any capabilities he has.

Cooperation between school and home is essential to achieve success in self care skills; there should be consistency in training methods used. All self care programs should enable the student to present as attractive an appearance as possible, to increase his personal dignity.

Teachers should be aware that the student may be medically incapable of doing what is required of him, as in the case of the student with inadequate sphincter control. In all cases a doctor's report should be obtained before a program is set up. Knowledge of the student's medical condition and recommendations of the physio- and occupational therapist are required before the method of programming is decided. A common objective may require various adaptations according to the handicap of the individual student. A major consideration is correct positioning for both student and staff.

Programs for self care should be implemented at appropriate times, e.g. the student should be taught to wash his hands when they are dirty. Methods of programming are varied but, in many self care situations, backward chaining has been proven successful.

The considerations sections include special instructions and hints, e.g. adaptive equipment, handling.

SELF CARE
A. Toileting

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Exhibits regularity in elimination.	Note: Toilet training should not begin until the student has matured (C.N.S. and sphincter) sufficiently to exhibit stable elimination patterns, e.g. doesn't dribble and has dry periods of 1-2 hours. Devise a chart that includes meaningful daily routines (meals, juice time, recess) as well as time intervals. Devise a simple code system to monitor elimination patterns, e.g. W - wet, B - bowel movement, blank - dry, circle the letter if an accident, add '+' if the action was student initiated, etc. Chart a minimum of 3 days if the student's pattern appears fairly constant, but increase up to 15 days if there are dry periods but the pattern is unclear. If the student has not established a readiness pattern repeat in 2-3 months. (A good readiness pattern would be 1 bowel movement and 3-5 urinations per day).	Toilet Training the Retarded. Systematic Instruction of the Moderately and Severely Handicapped, ch. 7.
Remains dry while sleeping.	After the student has achieved 75% success rate on daytime training apply the same procedure at night. Decrease the amount of fluids during the evening and eliminate fluids 2 hours before bedtime.	

SELF CARE
A. Toileting

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Toilet just before bedtime and tell student that if his bed is dry when he wakes up he will get a treat.	
	Check 1½ hours after bedtime and again before going to bed. If dry encourage the student to go to the bathroom; if wet change him.	
	If the student is wet by morning, ask parents to monitor during the night to determine the most likely accident time.	
	Rouse the student prior to the accident time and toilet.	
	Once the once-per-night routine works, gradually increase the time of the toileting procedure until the student can go through the night dry.	
	Continue to provide praise for dry beds in the morning.	
Indicates need to go or need to change (verbally or non-verbally).	Continue with regular pant checks to obtain and reinforce wet/dry.	
	Emphasize the unpleasantness of wet or soiled pants.	
Identifies the bathroom with toileting.	Toilet only in the bathroom.	
	Toilet students in small groups so that they can model.	

SELF CARE
A. Toileting

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Sits on toilet for up to five minutes.	Use chart information to establish toileting times; begin with high incidence times.	Handling the Young Cerebral Palsied Child at Home, p. 75.
	Establish routine toileting times after meals, before and after nap.	
	If the student is fearful of the bathroom make it a pleasant place with pictures, music, bright paint.	
	Tie a favorite toy to the potty so that the student is occupied.	
Complies with toilet training schedule.	Initially choose 2 time periods of the day when there is the most consistency in elimination.	
	Stay with the student, keeping him company.	
	If there are no results after sitting for 5-10 minutes have the student dress and return to activities without praise or censure.	
	Record all trials and all eliminations (successes and accidents) on a chart in the bathroom.	
Demonstrates ability to control toileting needs.	Watch carefully and reward any movements toward the bathroom.	

SELF CARE
A. Toileting

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Mounts and dismounts toilet.	If necessary provide a sturdy step to help the student reach the toilet. Teach proper position for boys by providing a support on the toilet tank to hold on to. Teach boys to hold penis down with one hand. Use modelling. Familiarize the student with related toileting routines to be taught later: pants down, etc. If student does not understand verbal directions introduce and teach signs related to toileting as part of the toileting routine: - toilet - pull pants down - go potty (use toilet sign) - wipe - flush - pull pants up - wash hands. Establish consistent accident procedure that includes: recognition that the student is wet, a cleaning up routine that involves the student and a positive practice procedure that shows the student the proper routine.	
Exhibits good toilet hygiene: wipe, flush, wash hands.	Teach wiping while student is sitting down or standing, balanced against the wall, whichever is easiest for student.	

SELF CARE

A. Toileting

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Use "hands-on" method to teach securing the toilet tissue and wrapping it around the student's fingers. Place hand in position and assist the student to wipe up and then put toilet paper in the toilet.	
	As students often forget to flush put a large picture of a student flushing the toilet by the toilet paper holder as a reminder.	
Adjusts clothing before and after toileting.	See B. Dressing.	
	Teach these skills prior to intensive toilet training so that the student has mastered a large part of the routine.	
	Do not teach these skills when the student is anxious to go; teach at regular toileting routine times.	
	Have the student wear training pants and trousers with loose elastic tops (velour or terry are ideal fabrics as they are soft and absorbent).	
	As the toileting routine becomes established, introduce pant checks on a regular basis prior to the toileting routine.	
	Ask the student verbally and/or with sign if he is wet. Encourage him to check his pants. If he is dry reward; if he is wet, say, "Oh no, you're wet, that's not good", and carry out accident procedure.	

Adaptive Equipment and Positioning

- buy a solid plastic adult-sized toilet seat with a lid and cut a proper sized hole in the lid
- use a urine deflector that redirects the stream of urine. These can be cut from a side of a plastic bottle, and by padding the sides and back, it will help keep legs apart, e.g. not scissoring, so student can relax
- provide a padded seat for thin students or those with sores
- place a small strip of foam rubber around the rim to provide a firm base
- provide a wide, firm base and back support
- place the pot inside a cardboard box (for a child), a corner or triangle chair for students with poor head and trunk control. Also put a stool, chair, etc. (something to hold onto) in front so that the student's arms are forward
- have the student's feet touch the floor; use a box or wooden blocks, 5 cm x 10 cm to raise floor
- have boys kneel, using a potty on the floor, if standing is not possible
- use a urine alert: a plastic bowl which fits into the toilet bowl. Detachable wires connect the "moisture detecting snaps" to a signal box; a tone sounds when elimination occurs.
- use a pants alarm: moisture detecting snaps fastened to the front part of the briefs and two flexible wires from those snaps lead to the signal box (fastened to back upper part of briefs); when the area between the snaps is moistened, the tone sounds.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Cooperates passively while being dressed.	Try to establish early the most appropriate position for later self care.	Handling the Young Cerebral Palsied Child at Home.
	Use two people initially, one to use physical prompts, while the other conducts the self care routine.	
	Sit on floor and dress the student from behind, using your knees to support him (a symmetrical position, bent slightly forward).	Hawaii Guide to Severely/Profoundly Multi-Handicapped Child, p. 160.
	Always dress the student in the same order, using the same movements. Help him anticipate next step, "Now, sweater on, hand ready".	
	Talk to the student while dressing; make each step distinct. Play dressing games. If necessary use sign for clothing part paired with the word.	
	Before putting on socks, make sure knee is bent and ankle flexed up so that foot won't arch stiffly.	
Cooperates in dressing by extending arm and leg.	Hold under the elbow or knee to extend arm or leg. Do not pull by hands or feet.	

SELF CARE
B. Dressing

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Removes simple clothing.	Play "Remove the Hat" game, where teacher wears hat and then takes it off with "oops". In front of a mirror place the hat on student's head and take it off using "hands-on" method. Gradually withdraw your hand and put the hat on properly rather than just placing it on top of the student's head.	Wabash Guide to Early Development Training, p. 409. The Right to Education Child, p. 126. An Experimental Curriculum for Young Mentally Retarded Children, p. 29. The Severely and Profoundly Retarded: A Practical Approach to Teaching, p. 141.
	Put treats in hat and place on student's head to encourage him to find them by taking it off.	
	When removing sock pull it over the heel and then let the student remove it. Have student sit cross-legged on floor.	
	Attach string to hat and socks to help student remove them.	
Undresses self, if laces untied and buttons undone.	Teach student to unzip by attaching ring, etc.	
Discriminates front and back of clothing.	Use consistent cue for back of clothes, e.g. sew or tape a large colored tag where material tag or label is. Fade out large cue and replace it with naturally occuring cue: the tag or label.	
	Have the student find the tag when given a piece of clothing.	

SELF CARE
B. Dressing

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Use task analysis, using the tag as part of the dressing process for T-shirts, pants and shirts. Use routine consistently.	
Assists in dressing, e.g. pulls on simple garments.	Have a chair available to use as support for student. Always dress and undress in appropriate place, e.g. at clothes rack. Use shortened pants and short sleeved shirts if necessary. Avoid tight fitting clothes. Use large, open, expandable neck or openings for garments which go over head; use velcro fasteners in place of buttons for more severely handicapped students; use slip-on shoes, tube socks. Build in established dressing routine; give student opportunity to do the steps and prompt as necessary. Increase the degree of assistance only after the prompts fail.	Hawaii Guide to Severely/Profoundly Multi-Handicapped Child, p. 161. Handling the Young Cerebral Palsied Child at Home. The Right to Education Child, p. 126. Pennsylvania Training Model: Competency Checklist for Dressing.
With assistance, dresses and undresses self (outer apparel).	Use boots that pull off and on easily; untie scarf for the student; use "hands-on" method with verbal instructions as necessary. Have chair available to use as support for student.	Educational Programming for the Severely and Profoundly Handicapped.

SELF CARE
B. Dressing

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Gets specific clothing items.	Use signs or words that have been established in dressing routine.	
	Ask the student to pick out the "shirt", etc. in the dressing sequence. Have an established dressing sequence, e.g. shirt on, pants on, etc.	
	Teach student where clothing is kept, in coatroom at class, drawers at home, by establishing getting the clothes out as part of the dressing routine.	
	Allow time for the student to get the clothes, adding prompts as needed.	
Recognizes own clothing.	Use consistent marker for the student and teach as per the clothing tags.	
	Have a picture of the student and his marker tag above his coat hook. Teach matching clothes to tag to hook with the tab and picture. Do not change the location of the tag/hook during training.	
Hangs up clothes, e.g. on hook.	Teach the student to locate the easiest part of his clothes to hang on the hook, e.g. arm hole, and guide the student to place the arm hole on an enlarged hook at chest height; use a footstool.	An Experimental Curriculum for Young Mentally Retarded Children.
	Add a loop on the back of clothes for easier hanging.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Takes off and puts on shoes (no tying).	Use slip-on loafers one size larger if necessary.	The Right to Education Child, p. 126.
	First teach taking shoes off in a tailor position or on a chair, wherever the student can place his feet flat on the floor. Push heel off with other foot or hand, then push toe off.	Wabash Guide to Early Development Training, p. 407.
	Have student put toe in shoe; push foot forward on floor until he touches his toe at the end of the shoe.	An Experimental Curriculum for the Young Mentally Retarded Child, p. 161.
	Use prompts to push heel down; use shoe horn.	
	Use "hands-on" method for all of the above, working beside or behind student to put foot in the correct position.	
Starts zipper and zips up.	Use "hands-on" method, first teach zipping down, then up, after a start has been made.	
Buttons up garments.	Start with velcro fasteners over button holes to teach to match buttons to holes.	Wabash Guide to Early Development Training, p. 424.
	Start with quarter size buttons on smocks.	
	Use "hands-on" method; place fingers through button hole to grasp button and pull button back through hole.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Buckles a belt, laces shoes, ties shoes.	Start training with backward chaining. Use "hands-on" method while threading the belt, then buckle it. Start with shoes with few lace holes. Paint every other lace hole white and use one white lace and one black lace to match to appropriate holes. Use "hands-on" method, sitting in tailor fashion when lacing, tying shoes, working from behind the student.	
Dresses self independently.	Gradually fade assistance.	Step by Step Learning Guide for Older Retarded Children.

SELF CARE
Dressing Considerations

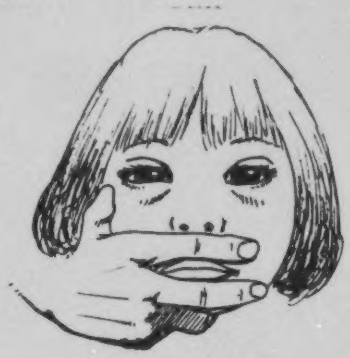
1. Positioning

- dress and undress the student while lying across your knees, on his tummy (this position provides a good combination of handling and treatment - the student is flexed, pressure on the stomach is minimal).
- as the student becomes heavier, dressing on his back may be the best possible way - prop him on a hard pillow so that his shoulders are raised and forward
- use side-lying position, rolling the student from side to side (shoulders and head are easy to bring forward, therefore, it is easier to put clothes over the head and around the shoulders, less resistance to bringing the arms forward and straightening the elbows)
- when sitting have student who has difficulty maintaining balance in a sitting position sit with his back to you, e.g. tailor sit, or have him sit directly in front of you near the edge of a table. In this position, his legs and hips can be bent.
- dress student in front of a mirror so that he can see what you are doing
- use the corner of a wall to give the student extra support if balance is not good enough to allow the student to have both hands free in dressing
- have student press feet against the wall to lift hips when lying down (good for athetoid students) - when standing have student support himself against the wall so legs can be bent.

2. Handling

- always put clothes on the most affected area first
- straighten the limb first then put the sleeve on. Don't pull if the student resists straightening his elbow (do not pull by the fingers as this will cause the elbow to bend)
- if the student is sitting symmetrically, problems in stiffness and bending on one side can be avoided
- it is easier to bring arms forward if the student is bending sufficiently at the hips
- bend the student's leg before putting on shoes and socks so the foot is not stiff and toes not turned under
- if the student is lying on his back, put pillows under his head or hips so that bending knees and hips will be easier
- for athetoid student: if in a sitting position, apply pressure to knees (down together) or feet to ensure that his feet do not come off the floor or his knees don't part when arms are raised
- for spastic student: keep the trunk well forward, hold the legs apart and outward at the hips. Support the student at the lower part of the spine, to help keep hips and legs bent and keep shoulders forward.
- kneeling may give students a wider and firmer base than standing.

SELF CARE
C. Eating

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Swallows liquids.		
Controls tongue.		
Opens mouth spontaneously and accepts food.	Tap the plate with spoon, place small amount on spoon. Bring food to student's eye level and "announce" food.	A Prescriptive Behavioral Checklist for Severely and Profoundly Retarded.
Chews and swallows semi-solids.	If student does not chew or close mouth spontaneously sit behind him and hold jaw as in diagram, using bottom fingers to move jaw as in chewing, top fingers to open and close mouth.  Allow time for student to open mouth. Encourage chewing motion by example, even with semi-solids. Using upward motion, stroke front of throat to encourage swallowing.	
Chews and swallows solids.	Manipulate mouth gently. Ask student to chew, swallow, etc.	

SELF CARE
C. Eating

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Sucks with a straw.	Note: If student has tongue thrust or reflex (pushes tongue out on straw) secure assistance from occupational therapist to establish correct sucking pattern.	
	Use a favorite drink and start with short straw in tall glass.	Individualized Learning Program for the Profoundly Retarded.
	If above unsuccessful, check if straw is at top of mouth, lips closed tightly around straw.	
Eats with fingers.	Note: If necessary establish signs for eating. Train at snack time.	Hawaii Guide to Severely/Profoundly Multi-Handicapped Child.
	Serve snacks in bite size chunks, e.g. bread and peanut butter squares, banana, popcorn, etc.	
Eats bite-sized pieces.	Cut food into bite sized pieces, cut sandwiches in at least 4ths.	State-wide Inservice Training Project.
Sits at table in position conducive to eating.	Establish sitting down routine and ask each student in turn if he is ready to eat.	
	Serve snacks when students are prepared. Have snacks ready well in advance and in sight of student.	
Drinks from a cup or glass.	Always sit or stand behind or beside the student when using "hands-on" method to ensure an easy flow or movement.	
	Serve only a little in the cup.	

SELF CARE
C. Eating

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Use adapted cups only if necessary after repeated attempts with regular cup.	
Eats with a spoon.	Start with foods which will stick to spoon, e.g. pudding, cereals, mashed potatos.	
	If necessary use brightly colored spoon with large handle or build up handle with tape.	Plastic coated spoons.
	Using "hands-on" method help student scoop food and take to mouth; have student put food in mouth.	
	Continue with backward chaining procedure.	
Associates appropriate room with meals.	Establish an eating area in the classroom or in another section of the school. If space does not permit a separate area establish "eating cues": table cloth, napkins, etc.	
	If necessary pair word/sign for hungry with word/sign for eating as you prepare table.	
Locates and sits at his own place at table and eats in his own space.	Use large personalized, non-slip place mats for each student (plastic animal place mat or a laminated one with student's photograph).	
	Encourage the student to eat and keep his dishes and food on the place mat.	

SELF CARE
C. Eating

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	If no place mats are available, tape squares on the table and personalize that square for each student.	
Eats with a fork.	Use "hands-on" method, modelling and chaining with a personalized task analysis.	Hawaii Guide to Severely/Profoundly Multi-Handicapped Child.
Exhibits good table manners.	Establish mealtime routines by being present and modelling good manners. Teach unpacking lunch bag or pail and placing food in order to be eaten. Use prompts for keeping mouth closed; wipe mouth. Once routine is established invite other students to eat with the group. Once a month ask Moms to help with a full meal with serving bowls, etc. Use "eating out" on a regular basis (once per month) to teach eating hamburgers, chips, etc; avoid rush times in restaurants.	
Pours from one container to another.	Use a large container and small pitcher, using a small amount of water, styrofoam chips.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	When using small containers be sure pitcher has a large spout that fits into container.	
	Have student pour from thermos into cup.	
Spreads with a knife.	Use soft butter and toast. Stabilize toast and place butter on far side. Teach student to spread towards himself.	Stabilized cutting board.
Helps prepare simple snacks.	Have students help with snack preparation, crackers, etc.	Pre-Vocational Package (V.R.R.I.).
Peel fruits with hands.	Use bananas (with a start) and mandarin oranges.	
Selects favorite foods.	Ensure that there is some variety in snack time to allow choice.	
Eats a variety of foods.	Collaborate with parents; present student with well balanced meal.	Canada Food Guide.
Eats appropriate amounts, e.g. stops when full.	Use prepackaged or prepared amounts.	
	Have student choose amount and remove all else.	
	Reinforce for "finished"; use word or sign and reward.	
Cuts with a knife.	Use a non-slip surface to stabilize what is cut.	
	Have student practise with dull knife, play dough, plasticine.	Knife with recessed serrations. Play dough.

SELF CARE
C. Eating

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Ask parents to send uncut sandwiches, pancakes, etc. to school.	
	Use pizza cutter if student has problems with knife.	
Participates in table talk during meals.	Establish "talking" routines, such as asking for food.	
	Have other students model, e.g. invite other students at lunchtime.	
Distinguishes between edibles and in-edibles.	Use physical deterrent with emphatic statement of "No" when student attempts to put in-edibles in mouth.	Mealtime for Severely and Profoundly Handicapped Persons.

SELF CARE
Eating Considerations

1. Positioning

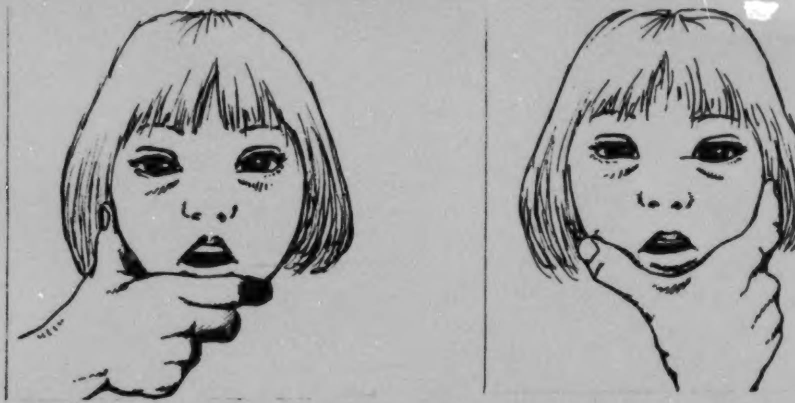
- put the student in an upright position with a minimum of support from the person feeding him. Never feed student in lying down or in a slant position
- have the student sit in a straight chair, wheelchair with a lap board, a high chair or cut out table as soon as possible
- place student in front of you, resting against the table edge, on a foam rubber wedge, a cushion or sitting in a support chair which rests against the table edge. If the student is on your lap, keep the legs apart so that scissoring is prevented by your body and his head and arms are brought forward from the shoulder
- when feeding the student in a sitting position on your lap, prevent hyperextension by raising your leg under his knees with your foot on a box or stool, to provide more hip flexion. If he needs support on his lower back or shoulders, put your arm on a pillow on the table.

2. Sitting Position

- head should be in midline and upright. If the student lacks head control, attach a head centering cushion to the chair at a height so that it provides support to the neck area
- align trunk symmetrically with the spine straight. If necessary, provide stabilization on either side to maintain alignment
- roll shoulders slightly forward by placing rolled towels behind each shoulder
- support forearms with a tray just high enough so that the elbow is bent at 90°
- hands should be free to bring together
- stabilize hips and thighs so that weight is evenly distributed over both hips. Make sure that hips are symmetrical and flexed at 90° or more
- use a seat belt attached to the chair at the buttocks and angled up to cross hips, right at the hip joint, to maintain the correct position
- position feet flat on a supporting surface so that ankles are aligned and flexed at 90°
- to help a student straighten his back and hold up his head, put both of your hands on his lower back and apply pressure to both sides of the spine.

3. Oral Motor

- apply jaw control to improve feeding when control of muscles in the mouth is lacking. This is applied with three fingers (thumb, index, middle finger). The middle finger is placed just behind the chin where constant, firm pressure is applied. The index finger is placed between the chin and lower lip and the thumb rests along the cheek on the jaw joint (from the front, the thumb is placed between the chin and lower lip, index finger is on the jaw joint and the middle finger just behind the chin).



- be sure to allow the student time to adjust to jaw control; apply jaw control before presenting spoon, cup etc.; fade support as jaw control develops
- sucking: the best time to teach sucking is when the student is thirsty
    - tilt the head forward a bit and lightly stroke the student's cheeks to stimulate sucking
    - use gentle movements of the straw up, down and sideways
    - encourage sucking motion of the lips by closing the lips with your thumb and index finger when the spoon is removed
    - stimulate sucking by using a variety of stimuli, e.g. tactile stimuli on the lips, above or below the lips, using extreme cold drinks or sugar
    - provide suckers, candy sticks, popsicles to practise sucking
    - do not use a cup with a spout since this may cause the student to develop abnormal sucking patterns
- swallowing: a closed mouth helps swallowing, lips should be held together if necessary
    - gently stroke the student's throat in an upward motion to induce swallowing or brush around the cheeks and mouth
    - have the student touch his throat occasionally to know what swallowing feels like
    - put a small amount of peanut butter (or other sticky substance) on the roof of the mouth - the tongue movements will stimulate swallowing
- chewing: stimulate chewing by placing food on the middle of the tongue with a bit of downward pressure of the spoon as food is left on the tongue, this prevents tongue movements which push food out of the mouth
    - hold lips together while chewing
    - press down on the chin to close the jaw, or push the student's jaw up and down to get a chewing action
- lip closure: have student use his lips to remove food from the spoon - don't scrape food off on the student's teeth
    - do not place food on the lips as this will encourage the student to lock
    - encourage lip closure when sucking on a straw
    - put something sweet on the tip of a straw and put the straw in the student's mouth
- drooling results from poor lip closure and/or the poor ability to swallow independently. To suppress drooling, place your finger across student's upper lip and nose, exercising firm and continuous pressure. Try this without talking to the student or without interupting his activities
- use jaw control in feeding and drinking to establish swallowing patterns

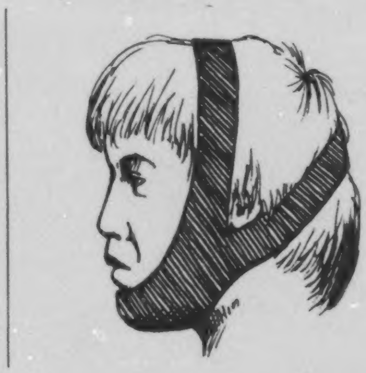
- tongue control: place food between the middle and tip of the tongue with a slight downward pressure
  - if the student thrusts his tongue frequently, press a tongue depressor under his tongue
  - since midline control is last to develop begin by presenting the spoon from the side of the mouth and gradually move to midline
- drinking: lip closure is the most important element of drinking
  - tilt the glass to the point where the liquid touches the upper lip, leaving the student to do the rest
  - start with slightly thickened liquids (acid liquids tend to increase saliva flow and are difficult)
  - when beginning, place the rim of the cup on the lower lip, not between the teeth (this will stimulate the bite reflex)
  - do not remove the cup after each swallow. Let it rest between the lips, otherwise an abnormal drinking pattern may result
  - when the student learns to drink from a cup, eliminate as much jaw movement as possible so that he does not develop abnormal patterns of sucking. To do this, apply pressure against his chin while drinking.

4. Adaptive Equipment

- use a spoon with a small bowl, i.e. so that it easily fits into the student's mouth and not long and pointed so that it causes a gag reaction, and shallow so that food can easily be taken off with the lips
- build up the handle of a spoon for students with grasping difficulties, e.g. use bicycle handles, wooden dowel rods, sponge rubber, rubber tubing, universal cuffs
- use a plastic coated metal or bone spoon, not a plastic one which may break if the student has a strong biting reflex
- for drinking, use a cup with a projecting rim and cut out the far side of the cup to allow space for the student's nose
- wrap a cup in elasticized terrycloth so that student can grasp it
- use cups with weighted bottoms. Or take two cups, put sand in the bottom of one, put the other cup inside and tape them together
- straw drinking: use a plastic cup with a sealing lid and a hole cut in the centre which is smaller than the straw. Use polyethylene tubing (surgical tubing) which extends to the bottom of the cup. A vacuum is created so that when you press on the lid, liquid is pulled up
- use steep side of a bowl rather than a plate for scooping
- place non-slip mat underneath bowl (Dycem).

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Cooperates in having face and hands washed and dried.	Use "hands-on" method.	The Severely and Profoundly Handicapped: A Practical Approach to Teaching.
	Start with water play in the sink. Allow the student to play with cloth and soap.	
	Provide a stool so the student can comfortably reach the sink.	The Right to Education Child, p. 90 - 91, 107.
	Initially avoid washing eyes.	
	For touch resistant student use soft cloth.	
Cooperates during bath time.	Use shallow lukewarm water.	The Right to Education Child.
	Have a non-slip surface in the tub.	Bathmat.
	Have toys in the bathtub.	Toys.
Washes face and hands.	Use "hands-on" method.	
	Place student in front of a mirror.	
	Cover face with shaving cream to ensure washing of all areas of face.	
Cooperates when getting teeth brushed.	For resistant students, use flavored swabs so the student gets used to the idea of having the object in his mouth. Gradually pair the swab and toothbrush.	An Experimental Curriculum for Young Mentally Retarded Children, p. 186.
		Flavored swabs.
	Use flavored paste on the brush.	
	Model spitting.	

SELF CARE
D. Grooming and Hygiene

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Controls drooling.	Remind student to swallow at appropriate intervals. Use physical prompts to stimulate swallowing and keeping the mouth closed. Use straws for drinking; encourage sucking and swallowing. Encourage the student to keep head up. If student cannot keep jaw up, use snoring strap for short periods of time.  Note: Some older students may not yet have developed the swallow instinct without having food in their mouth, therefore swallowing will be encouraged through the use of the above methods.	Hawaii Guide to Severely/Profoundly Multi-Handicapped Child.
Washes and dries face, ears and neck.	Use backward chaining.	Wabash Guide to Early Development Training, p. 429 - 430.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		An Experimental Curriculum for Young Mentally Retarded Children, p. 171. The Right to Education Child, p. 95. Teaching the Moderately and Severely Handicapped, p. 99 Hawaii Guide to Severely/Profoundly Multi-Handicapped Child, p. 165.
Brushes/combs hair.	Use soft brush or large comb; build up handle for easy grip. Associate the comb/brush with the hair. Have student respond by rubbing or touching the comb to his head. Have student comb your hair. Always groom hair before an outing so the experience is associated with something important.	
With assistance, brushes teeth.	Imitate all the tooth-brushing but let the student do the preparation and cleaning, e.g. get toothbrush and when finished put toothbrush back.	

SELF CARE
D. Grooming and Hygiene

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Hand student each item he will need, use "hands-on" method to perform the task.	The Right to Education Child, p. 108.
	Check gums, particularly with student who does not swallow well or use tongue to clean teeth.	Hawaii Guide to Severely/Profoundly Multi-Handicapped Child, p. 164.
Distinguishes between clean and dirty.	Have student get one hand dirty, e.g. with pudding, mud to feel and see the comparison. Enhance the cue from extremely dirty to slightly dirty. If necessary pair sign and word for clean/dirty.	
Covers mouth when coughing or sneezing.	Teach student to keep tissue in pocket and remind him to take tissue out when coughing starts.	
Blows and wipes nose.	Note: Nose blowing may be a difficult task, therefore concentrate on wiping and having students get and discard tissues.	The Severely and Profoundly Retarded: A Practical Approach To Teaching, p. 99.
	Use "hands-on" method to teach student to hold tissue properly.	An Experimental Curriculum for Young Mentally Retarded Children, p. 187. Wabash Guide to Early Development Training, p. 433, 435. Teaching the Moderately and Severely Handicapped.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
With assistance, bathes and showers.	Demonstrate safety procedures of bathing, e.g. turn on cold water first, then hot.	
	Put a mark on the side of the tub so the student knows how far to fill the tub. Have a non-slip surface in the tub; assist the student in and out of the tub.	Hawaii Guide to Severely/Profoundly Multi-Handicapped Child, p. 166.
	Provide grab rails for those who need them.	Wabash Guide to Early Development Training, p. 433, 435.
	While in tub or shower, use "hands-on" method to wash completely.	Teaching the Moderately and Severely Handicapped.
		Handling the Young Cerebral Palsied Child at Home.
Cleans nails, e.g. with nail brush.	Teach the use of a nail brush by using the washcloth first and making the motions of cleaning the fingernails. Use "hands-on" method with the brush.	Teaching the Moderately and Severely Handicapped, p. 103.
Exhibits correct posture.	See Motor Skills, A.1. Posture.	
	Make student aware of correct posture.	
	Use corrective measures, e.g. tilt head up and straighten shoulders.	
	Encourage changes in position.	
	Point out others who are exhibiting good posture.	
With assistance, washes hair.	Have all the necessary items at the sink prior to washing.	Teaching the Moderately and Severely Handicapped, p. 107.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Assist student in adjusting the water temperature, always using cold water first.	
	Use a jelly shampoo as it is not as likely to run down into the face and eyes as a liquid shampoo, or a baby shampoo.	
	Let the student look in the mirror and play with the shampoo if he likes it.	
	Wash hair in tub before using sink. Have student tilt head back so that water and soap do not run in his eyes.	
With assistance, uses deodorant.	Help student identify area either by having him clasp underarm area or mark with chalk. Use roll-on or stick deodorant.	
With assistance, chooses chothing appropriate for occasion.	Teach appropriate clothing for actual daily weather condition.	
Demonstrates independence in bathing, washing, hair drying and styling hair.	Have all the items ready for the student before the bath or shower.	Wabash Guide to Early Development Training, p. 428.
	When using a blow dryer, introduce the cold air first.	Hawaii Guide to Severely/Profoundly Multi-Handicapped Child, p. 169.
	To dry back, teach student to hug the towel around his shoulders, or use a terry dressing gown.	The Right to Education Child, p. 93.
	Have a bathmat outside the tub or shower so the student does not step onto the cold floor.	

SELF CARE
D. Grooming and Hygiene

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Brushes teeth independently.		
Demonstrates independence in care of menstrual needs.	Use beltless napkins; teach through task analysis both putting on and taking off. Build changing napkins into toileting routines to ensure that napkins are changed regularly, 3 to 4 times per day. Once the routine is well established allow for individual judgement. Encourage frequent bathing.	Hawaii Guide to Severely/Profoundly Multi-Handicapped Child, p. 176.
Demonstrates independence in shaving.	Initially, do all shaving for the student, but let him do preparation and clean-up. Use an electric razor if possible. Introduce safety razor later if necessary.	

SELF CARE
Grooming and Hygiene Considerations

1. Adaptive Equipment

- provide accessibility to sinks by building a cabinet and a basic sink (more support when students lean on it)
- have non-slip surface for bath
- place small children inside a small tire tube
- use various types of seats for those students who cannot bend enough to sit with his legs extended, e.g. stool with suction cups, bath seats
- use frame formed with slats for students who lie down
- provide box, stook or table that the student can sit on before stepping into the tub
- bathroom equipment: mitten-type sponge or wash cloth; wooden nail brush dented on the sides to make gripping easier or a piece of webbing over the top so that the student's hand can be slipped in; liquid soap container; hand spray attached to taps for rinsing; large bath towel with a hole in the middle which can be slipped over the head.

2. Dental Care

a. Factors

There are three factors that relate to increased peridontal disease in handicapped individuals:

- medications: Dilantin is a major contributor to the development of hyperplasia (swollen gums). The severity is related to the dosage of the drug.
- baroxism or chronic grinding of the teeth: Mouth guards, similar to those used by athletes, can be constructed to reduce wear on the teeth or to protect teeth.
- poor dental hygiene: because of poor swallowing and use of tongue to clean out food particles in the mouth.

b. Role of the Teacher

It is imperative that oral hygiene procedures be maintained at school. Teeth should be brushed after meals or "sweet snacks". At the very minimum, the student's mouth should be rinsed with water.

Oral hygiene consists of removing dental plaque. This can be accomplished in onw of two ways:

- flossing: hold the floss against the side of one of the teeth; maintain downward pressure to get between the teeth, then manipulate the floss so that the surfaces of adjacent teeth are cleaned.

- brushing: use a soft-bristled brush in a "circular scrub motion" where the brush rests on the side of the teeth and is rotated in small circles so that the gums are also massaged.

c. Hints for Teachers

- try massaging the gums with your finger or a cotton swab dabbed in bicarbonate of soda, saline or water.
- use a small infant size toothbrush that is moistened
- for students who will not open their mouths, try slowly introducing the toothbrush through the lips and begin to brush the outside of the teeth, i.e. side facing the cheek, to desensitize the student to brushing.
- an electric toothbrush required less manipulation for correct brushing action and adequately massages gum. Whether you are using an electric or manual toothbrush, be sure to massage gums toward the roots of the teeth.
- remove your finger or toothbrush from the student's mouth every few seconds to allow for swallowing
- if the student is hypersensitive to being touched in the mouth, use quick, firm strokes and remove your finger or toothbrush after each
- try using the jaw control procedure (see Eating Considerations) to help close the student's mouth
- when brushing, try to position yourself behind the student (either sitting or standing) so that the student's head can be braced against your body while keeping both hands free
- dietary considerations are another essential element of oral hygiene programs. Parents and teachers should be aware of which foods should be avoided, i.e. high sugar or high carbohydrate content and which foods can be used as substitutes.

d. Role of the Dentist

- For the most part, dental care for severely handicapped students is the same as for anyone else. For a few, an increase of management procedures may be necessary, depending on the individual, e.g. anaesthetics, restraints such as rubber dams.

e. Hints for Visits to Dentists

- communication with the home is essential before any visit to dentist
- try to provide the dentist with as much information and support as is possible to ensure that he feels comfortable with the student, e.g. dental and medical history, preferences.
- the student should feel comfortable with the dentist before beginning. He should be assured that uncontrolled movements are anticipated, i.e. with spastic individuals, to reduce stress and increased spastic activity

- if the dental chair is tilted backwards, the student's position is better maintained and this allows the dentist to cradle the student's head
- the dental chair can be modified by use of pillows, pads or foam blocks
- teachers may refer the dentist to Cerebral Palsy: Its Individual and Community Problems, Cruikshank, W. M. (1966), or to dental specialist in clinics.

SELF CARE
E. Personal Health Care

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Accepts medication.		
Cooperates when given medication.		
Drinks liquid medications from a cup independently.	See "Eating" strategies.	
Swallows tablet medication independently.	Establish sign/word for "gone", e.g. open mouth to show that it is gone.	
Indicates when he is sick or hurt.	Be aware of potential hurts and help the student associate with body part. Place student's hand on hurt part as you say/sign hurt. Reward the student for locating the hurt.	
Recognizes difference between medicine and food.	Always keep medicine in a clearly identified container and try to establish medicine routine apart from meal, e.g. medicine first, when finished sit down to eat.	
Unwraps or unbottles dose of tablet medication at appropriate times and takes it independently.	For ongoing medication treatments the routine should have been established as a child. As the student shows interest allow him to assume part of the routine under close supervision.	
Pours and drinks single dose of liquid medication, and takes it independently at appropriate time.	Provide assistance: allow time for student to participate as much as possible. Note: It is not anticipated that the dependent handicapped person would ever take short term medications or handle acute treatments.	
With assistance, applies topical medications.		

SELF CARE
Medications Considerations

1. System Responsibilities

The administration of medications is an important and responsible task. It is imperative to provide information and training to teachers in an attempt to prepare them to perform this task safely and effectively.

2. Hints for Teachers

Consult with parents and/or physician about the administration.

If at all possible, have medication times changed so that they are administered during non-school hours.

Be sure to keep all medications locked and out of reach. Observe any special storage instructions.

Get to know your local pharmacist for information, special instructions, etc. relating to medications.

Establish a systematic set of rules and regulations to ensure that appropriate procedures are constantly carried out, including adequate correspondence with the residential staff/parent regarding changes in medications, observations, etc.

Responsibility lies in: (a) dispersing and documenting medications, and (b) observing and monitoring the student for any physical or behavioral effects of the drug after administration. This information should be used as feedback, progress reports to the doctor, nurse, parent, etc.

Be aware of the effects of the drug:

- desired effects: when the prescribed drug is working; what the drug is supposed to accomplish,
- unwanted effects: effects other than the desired ones. These can be expected, e.g. drowsiness, or unexpected; harmless, e.g. urine discoloration, or serious, e.g. allergic reaction. The physical and behavioral changes may be observable, e.g. rash, diarrhea, or unobservable, e.g. blurred vision, dry mouth, irritability, agitation, letharghy.
- drug interaction: when a person is taking two or more drugs, it may result in another unwanted effect by increasing or decreasing the effects of one or more of the drugs or by producing new/unwanted effects. The more drugs taken at one time increases the possibility that an interaction will occur.
- no effects: no desired effect is observed after allowing adequate time for the medication to take effect.

In reporting observations to doctors, nurses, etc., note:

- changes in sleeping patterns
- changes in eating pattern
- changes in elimination patterns, e.g. diarrhea
- minor physical problems (colds, rash)
- unexplained bruises
- lack of coordination (motor)
- changes in mood and affect
- changes in behavior and mannerisms, e.g. cooperation
- changes in awareness and orientation.

Questions to ask pharmacists, parents, etc.:

- purpose/desired effect of the drug
- what is the response time
- what are the possible side effects
- are there any possible interactions
- are there any special administration or storage directions
- what happens if forgotten, taken by someone else?

CONCEPT FORMATION

INTRODUCTION

Concept formation focuses on three areas:

- sensory awareness
- learning readiness
- visual and tactile discrimination.

Sensory awareness activities provide the opportunity for students to develop the skills needed to be aware of their environment. Awareness can occur through a variety of modalities including touch, sight, hearing, taste, smell or movement.

Learning readiness focuses on the skills needed for the student to attend to and respond to instruction.

The visual and tactile discrimination section assists the student in using his new sensory awareness constructively, identifying differences between objects or events. This section focuses on the student's ability to distinguish between common and familiar objects; to tell the difference between things by their stimulus characteristics or quality, smell, feel, color, taste; and finally to group objects or events by their use and their stimulus characteristics.

One basic teaching strategy applies to most of the objectives in this section. It can be modified to suit the level of development of the student and the task but will provide a structured approach to cognitive teaching. Before beginning cognitive teaching, teachers should make sure that the learning readiness section is being taught.

Teaching Procedures: Cognitive Skills

Step 1: Awareness

Familiarize the student with the object or characteristic, in a play situation, prior to structured teaching.

Step 2: Labelling

Place the object on the table and say "Tom (point) this is a ....."; (hand open) "Give (show) me the .....".

Step 3: Matching-to-sample

Place 2 objects on the table near student, one similar to sample being taught. Present sample and say "This is my .....", "Give (show) me your .....".

Use 2 very dissimilar objects, placing the matching object closer to the student.

Step 3: Matching-to-sample (continued)

For errorless learning, tape the contrast object to the table.

Alternate position (right/left) of the object to reduce bias by location.

Note: Use a variety of contrast articles.

Step 4: Identification of 1 or 2 articles

Remove the sample and say "Give me the .....". If incorrect, return to match-to-sample methods.

Step 5: Recognition and Identification (up to 5 contrast articles)

Gradually increase the number and variety of contrast articles in Step 4.

Step 6: Transferring

Repeat Step 5 in various locations and with different teachers.

Step 7: Repeat Steps 1-6 with the contrast object or characteristic, e.g. ball/box, wet/dry.

Step 8: Sorting

Place samples of 2 objects/characteristics on the front of 2 boxes. Place a number of the objects being taught in a common pile and model sorting of first objects. Use prompts as necessary.

Note: Many severely and profoundly handicapped students have vision and hearing problems. Since the senses provide avenues for learning for these students it is essential that vision and hearing be assessed and corrections made as early as possible. It is recommended that teachers contact a consultant for the visually impaired and/or hearing impaired for assistance if problems are present.

CONCEPT FORMATION
A. Sensory Awareness

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
1. Tactile The student:		
Responds to and accepts familiar textures and sensations.	Note: Because some students are extremely sensitive to being touched care should be taken not to rush into a sensory awareness program with them until they can tolerate some physical contact.	
	If the student is touch sensitive sit beside him in a pleasurable atmosphere where he is mildly distracted, e.g. watching television, listening to music, eating a favorite food, and place hand gently but firmly on back of shoulder or thigh (or whatever part of the body seems least defensive). Gently but firmly rub the area.	Soft blankets, fur, lotions, crazy foam, loose sand and sand paper, playdough, shag rug, linoleum, aluminum foil, water, foam mats.
	Place student in tailor sit and firmly rub upper back. Avoid gentle rubbing or touching since it creates unease in many children.	P.U.S.H. Step-by-Step Learning Guide for Retarded Infants and Children.
	Arrange the student's environment so that he will encounter a variety of textures and develop a hierarchy of pleasurable items.	
	Begin each session by presenting pleasurable textures to the student. Let him use either hand.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Present it to the student or rub the texture on the student's arm and hand.	
	Use a puppet to play contact games, present textures.	Fuzzy puppet.
	Pair a pleasurable texture with a less desirable texture. When the student touches the new texture present the one he likes. Increase presentation gap until he tolerates new texture alone.	
	Integrate the new textures into other activities: -place student on a checkerboard made of large texture squares or play games on the squares -place crazy foam, shaving cream on various parts of student's body -play "Find the toy" in buckets of sand, popcorn, buttons -use pet toys and real animals -make texture tents or barrels for hiding in and crawling through.	
Locates (looks at, touches) where he has been touched.	Begin sessions by playing with pleasurable textures to heighten the student's arousal.	
	While the student is not looking, touch him firmly with your finger and note if he looks at the spot you have touched.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:	If he does not respond, display texture sample and encourage student to watch when you place it on his body. Have the puppet play "Watch me, I am going to kiss you" games to get student's attention. As you touch the student leave a small piece of bright tape or a sticker on the spot and have child take it off. Fade out color cue until clear tape is used. Immediately after touching the student ask him, "Where did the fuzzy puppet kiss/get you?", encouraging him to touch or look at the spot. If the student cannot locate where he has been touched, rub spot to heighten his awareness. Shield the student's view and announce that you/the fuzzy puppet, are going to touch him and ask him to show you where he was touched. Once the student can locate your touch try touching with pencil eraser, blowing through a straw, touching with a wet Q-tip, cold metal spoon, paper clip.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Demonstrates preference for specific objects or textiles.	See Fine Motor section for assistance in establishing grasp.	
	Use "hands-on" method to touch objects that provide built-in reinforcement.	
	Offer foam plastic, or other hand-sized materials.	
	Play games to encourage the student to hold the toy, e.g. pulling toys away on strings, floating toys in water.	The Right to Education Child. Floating toys, foam balls, pull toys, palm sized balls or cubes.
2. Visual		
The student:		
Turns eyes toward light or other visual stimuli within close range and focuses on object momentarily.	Use intermittent light sources and figures with high contrast as a stimulus. To enhance attraction, add a pleasant auditory cue such as bells, squeaks, etc.	Pen light or flashlight, high contrast patterns, speaking dolls.
	Present objects at a comfortable distance, e.g. 15 to 45 cm. Present articles within central visual field; remove, then present in either direction until articles are presented within 180° arc.	Systematic Instruction of the Moderately and Severely Handicapped.
	Use consistent instructions: "John, look".	

CONCEPT FORMATION
A. Sensory Awareness

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Draw the student's attention to the stimulus and if necessary, pair looking at stimulus with something pleasant, e.g. ice cream, a cuddle, a bell.	Ice cream. Wabash Guide to Early Development Training, p. 77-79, 278.
	If the student still does not turn toward the stimulus, have a helper gently turn his head toward the stimulus as it is presented, telling the student what he is doing.	Hawaii Guide to Severely/Profoundly Multi-Handicapped Child, p. 193.
	Have a staff person keep his head in steady position and present brightly colored stimuli.	
Tracks objects or people in a horizontal field.	Present the visual stimulus that worked best in the previous objective, at the student's best focusing distance. Start in the middle and move slowly in a 90° arc. Then move the toy in a continuous arc through 180°. Move the object only as fast as the student can track.	Puppets, noisy toys.
	If the student has difficulty tracking, stop and allow his eyes to catch up and focus, then slowly move to the next spot and stop, etc.	
Tracks objects or people in the vertical plane.	Move the article down from eye level in an arc to the student's waist and back up to centre plane. Then raise the object in a 45° arc up and back.	

CONCEPT FORMATION
A. Sensory Awareness

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Visually searches his surroundings to find objects or people.	Call attention to your presence when you enter the room by calling the student's name, clapping, waving a flag, etc. At intervals call the student to have him focus on you; add cues if he does not locate you after visual search. Set up a search pattern, e.g. look at door then across the room and have another person physically guide the student's head to establish the visual search pattern.	
Scans material on table.	Place two objects side by side at eye level and call student's attention to the first object by pointing, shining a light on it, or ringing a small bell beside it. Then, being sure the student is watching, draw attention from the first to second object by shining the light across, ringing the bell as you move, etc. Increase the space between the two objects. Gradually reduce cues until the student can scan with only verbal or signed instruction. Be sure to vary objects to introduce novelty into the task.	Toys, flashlight or small bell.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Increase to 3 objects side by side. Alter pattern to include vertical and horizontal scanning. Quickly transfer scanning requirements into daily routines: -"Find your juice on the table" -"Find the ball" -"Find your friend", etc. Play scanning group games, e.g. "Who has the hat?".	
Demonstrates awareness of an object's existence even when it is out of sight (object permanence).	Note: Object permamence is the turning point in the development of language and therefore when a student looks for a hidden object it indicates that he recognizes the object's existence even though it is not visible; he has an internal image or representation of it. Show the student an edible treat. Hide it under a cup; have student find it. Give the student a toy to play with. Cover part of the object with your hand, a light weight cloth or fuzzy puppet; say "Find the toy". If he does not see the toy, take his hand and uncover the toy saying, "Here is the toy".	P.U.S.H. The Teaching Research Curriculum for Moderately and Severely Handicapped. The Potomac Program.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Progressively cover more of the toy until he can find it when it is completely hidden. Hide part, then all of a toy or object behind a screen, under a placemat, in a cup, etc. Hide the object alternately in one of 2 containers, behind one of 2 screens, etc. Transfer "finding" into daily routines as soon as it begins to develop: partially hide his chair, his toothpaste, etc. making the process a game to avoid frustrations.	
Looks for fallen objects by bending over.	Start with large, easily located objects and gradually introduce smaller, less obvious ones. Model dropping toy, then ask "Where is it?...down there ...get it". Stand behind student, hold ball in his hands then drop it and go through above process with the student, bending his head down as you bend to find the ball. Allow time for the student to anticipate the movement each time until he looks for the ball on his own. Drop objects from table, off the student's lap, etc. to generalize the skill.	Various sized brightly colored objects.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
3. Auditory		
The student:		
Demonstrates awareness of sound by orienting to it.	Begin each session with a pleasant activity that stimulates the student, e.g. cuddling games, period on swing, etc.	Bell, shaker, drum, buzzer.
	Present moderately loud, pleasant sounds close to the student (less than 100 cm). Use intermittent sound, rather than continuous sounds. If this is not sufficient, add verbal and sign cues, "Listen! Find the bell".	An Experimental Curriculum for Young Mentally Retarded Children.
	Pair approximations of orienting with praise and cuddling, a chance to play with the noise maker, or external reward.	
	Model the appropriate response to locating sounds by exaggerating your response.	
	Once the response is established, gradually fade out all cues except the verbal/signed instruction, "Find the sound".	
	Gradually increase distance of sound source from the student.	
Responds to voices.	Use social reinforcement.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Use "hands-on" method if necessary to turn student's head toward source of voice.	The Teaching Research Curriculum for Moderately and Severely Handicapped, p. 151. Teaching the Moderately and Severely Handicapped, p. 48. The Right to Education Child, p. 214.
4. Tastes/Smells		
The student:		
Accepts a variety of tastes.	Record the tastes and smells the student likes and resists.	
	If the student is sensitive to textures, present new foods to him in a pureed form fading to natural texture.	Foods.
	Pair new foods with familiar and desired foods.	
	Regularly add new tastes in a pleasant atmosphere as a treat so that the student comes to expect new tastes as part of his routine.	P.U.S.H.
Accepts a variety of familiar smells.	Gently hold hand over the student's mouth to encourage him to smell.	
	Rub skin with witch hazel, warm lotions, etc. that have distinct smells and feels; have him put some on your body.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Play smell games with small jars filled with different smells.	
5. Movement		
The student:		
Demonstrates awareness of movement.	Watch the student closely as you carry him from place to place, noticing changes in muscle tone.	Rocking chair, blanket, hammock, wagon. P.U.S.H.
	With a student who stiffens when moved, pair gently movements with an experience that is reassuring or pleasurable, e.g. cuddling, singing, until he is less resistive.	
	Build up the student's tolerance to and pleasure in movement by using slow rhythmic motions (rocking chair, holding while walking, gentle swinging) to relax him.	
	Use faster motions to activate the student and increase muscle tone (hammock, swing, bouncing on your knee, pulling a wagon, rolling on a large ball or barrel).	
Attends to a large object moving through space.	Use large light colored ball with bells inside it.	Beach ball.
	Roll ball towards student; ensure student is not frightened of it.	Wabash Guide to Early Development Training.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Roll ball to other students. Have them roll ball to each other so that the student can see the aim of the game.	
	Tuck student into tailor-sit position to help him roll the ball to another student/teacher pair.	
	Move object that student uses often, e.g. chair, pillow, while the student watches, saying "Watch the chair".	
	Use brightly colored cars and trucks that the student can manipulate. Pull the car along the floor a short way to encourage student to follow it with his eyes.	
	Place a candy or treat on a car to encourage the student to follow it. Give him the candy when his eyes follow the car.	
Demonstrates awareness of force of movement.	As the student learns to sit, place him in a tailor-sit position and gently rock him sideways until he loses his balance, and rights himself.	
	Play tugging games; pretend to take a toy, pull on his leg, push him along the floor, bump into him with your head.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Demonstrates preference for certain toys or people.	Exhibit pleasure at student's choice; play with his choice of toy.	Bright, colorful toys, music box, etc.
	Let student take "special" toy with him for walks, nap, etc. Include toy in daily routines.	Wabash Guide to Early Development Training.
	Choose objects that student has played with in a structured play situation and leave them close to where he will encounter them, e.g. on lunch table, by the sink, by his coat. Carefully observe as he encounters the toy and reward any movements towards play by playing with him.	P.U.S.H.
	As he develops the ability to play with familiar articles, introduce novelty.	
Uses asking behavior to meet needs.	Within established routines encourage the student to initiate action, e.g. set the table for snack and wait until the student makes some move to request the snack.	
	Assign one student to request the snack for the rest of the class.	
	Set up activity and the remove one article slightly out of reach.	
	Exaggerate response to first approximations of "asking behavior".	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Have desirables available, e.g. crackers, juice, toys that the student will want to ask for.	
Chooses between two given alternatives.	Present choice of two snacks or toys. Identify each choice and ask "Which do you want"?. Wait until the student indicates choice by looking, pointing, etc. before giving him the food, turning on the record player, etc. If the student has trouble, start with a high preference item and a low preference item and prompt the choice. Once choice is made remove other so he learns that he does not get both. Note: Choice is an important element of all daily activities and the student should be given a choice whenever possible to prevent "habit" responding.	
Maintains position in teaching situation for 10 minutes.	Establish the most conducive position for teaching for each student, e.g. on the floor, in a side-lying or prone position or in a wheelchair, preferably at table or provide a small arm chair to start as it provides support and mild restraint. Determine the most conducive position for the student, where to present materials, etc. so that all staff using the teaching routines will present consistent expectations.	Early Cognitive Instruction for the Moderately and Severely Handicapped.

CONCEPT FORMATION
B. Learning Readiness

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Select a few toys that the student likes and place them on a table. Sit with the student for several sessions and encourage him to play while you record how long he maintains position, what he attends to, etc.	Systematic Instruction of the Moderately and Severely Handicapped, ch. 5.
	If the student is resistent to sitting: stand or kneel behind him and gently hold his head and arms in place with your body, while playing with a toy in front of the student.	
	Choose a relatively cooperative time and sit the student in the chair with toys. If he attempts to leave remove the toys and hold him until he settles. Praise him for sitting nicely and return the toys. Reinforce playing quietly for a short time.	
	If none of the above works try changing the teaching location or the student's position.	
	Teach sitting behavior in a group situation by making juice or cookies contingent on "good sitting".	
Attends to learning material before him.	After a short session of attending to the task praise student and allow him to play with his toys. Watch closely and when he becomes restless, stop trying.	

CONCEPT FORMATION
B. Learning Readiness

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Point to object; sign and say "Look at this". If student looks sign if necessary and say "good"; if student does not look repeat the instructions and add physical prompt; turn head and lift object. If the student looks, sign if necessary and say "Good". Repeat and fade out prompt. If the student is easily distracted remove all extraneous materials from the area and focus a light beam on the desired materials or darken the surroundings to highlight the material. If the student does not know what to attend to gently cup his chin in your hand and direct his face toward the material.	
Looks at teacher on command.	Bearing in mind the student's natural sight line, support the student's chin in your hands at arms length, at eye level. Praise quickly any fleeting glance and talk while the student watches you. Hold any interesting object: a rattle, a toy, a light source, at eye level when you give instruction.	Wabash Guide to Early Development Training. Systematic Instruction of the Moderately and Severely Handicapped.
Locates and focuses on teacher in a group, on command.	See Sensory Awareness, 2. Visual.	

CONCEPT FORMATION
B. Learning Readiness

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Hold any interesting object, e.g. a rattle, a toy, a light source, at eye level when you give instruction.	
	Start near to the student and move away gradually.	
	Clap hands to draw attention to yourself as you give the command.	
	Attach a bright ribbon to yourself and to student's wrist.	
	Play "Where am I" games. Have a puppet or toy "call" the student.	
Responds to task language.	Note: a) Because many dependent handicapped students are seriously delayed in developing oral language, this curriculum recommends for these students the consistent use of manual signs if necessary or picture cues in conjunction with verbal commands so that the student becomes familiar with signs and speech. b) Task related langauge should be kept simple and each sign/word introduced separately. Since signs do not have single interpretations general commands have been selected.	

CONCEPT FORMATION
B. Learning Readiness

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Basic signs for starting a task: - attend/watch - you (singular) - do (activity) - give - where - good - no - yes - sit/chair - still/quiet/be quiet. Note: An illustrated list of basic signs appears in the Appendix.	
Indicates "yes/no" in response to simple questions.	Teach "yes/no" in a two choice situation using a favorite food and an unpleasant tasting food. Through observation, determine student's likes and dislikes. Set two bowls of food in front of the student. Make the two bowls distinct, e.g. use a favorite color bowl for the "yes" food and a different color and shape for the "no" food. With the student watching pick up some food from the "yes" bowl and ask "Do you want some ...?". If the student responds "yes" give him some and say "Yes, that is good". If the student responds "no" put the spoon back and pick up some "no" food. Ask "Do you want some ...?". If the student responds "no" praise him for (continued on next page)	Food that can be given in bite size pieces: "yes" foods like popcorn, candy, ice cream; "no" foods like olives, plain yogurt, concentrated lemon, flour, mustard.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	responding appropriately. If the student indicates "yes" give him a spoonful of the food. The taste of the food should discourage the student from further "yes" responding.	
	If the student has a "yes" set present more "no" foods and vice versa for a "no".	
	Clearly imitate the student's actions and wait for response. Try and choose functional action.	
Imitates action.	If student does not respond by repeating your actions, wait until he acts again then sign and say "Watch and you do" and prompt his action.	
	If the student does not stop long enough to allow you to imitate, do the actions with him. When he is attending, pause and sign/say "Watch and you do".	
	Play "turn" games with student, e.g. have him push car in your direction, take it and push it back to him.	
Imitates unfamiliar actions on cue.	When the student is able to imitate, introduce an unfamiliar activity that has high interest value into the "Watch and you do" format.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Examples of unfamiliar actions are: - beat drum - ring bell - squeeze water pistol - roll ball. Sign if necessary and say "Watch and you do" as you do action; have the student imitate action sign and say "good". If the student does not act, repeat the instruction adding a physical prompt; sign and say "Good". Repeat, fading out prompt.	
Attends to learning materials on the table.	When the student is in a cooperative mood, sit him at the table in the "best learning position" and present an activity which requires that the student responds. As you position the student, say "Time to work, Tom".	
Solicits praise.	Ask for student's work; give verbal praise. Ask for work to be brought to you for praise, e.g. "Does anyone have anything he would like me to see?". Call attention to work, "Look what X did, isn't it nice?". Praise action of coming up as well as work itself.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Makes choice of activity and follows through.	Set up activity board with pictures of a few favorite activities. Have the student choose activity by taking picture card down. Once activity is chosen, remove that choice to ensure variety of choices is made. Present only reasonable choices so that the student can follow through immediately. Model, using other students.	
Models a peer in a teaching situation.	Select a friend of the student to perform simple actions. Use the motor imitation actions or daily routines such as eating. Use physical prompts to help the student attend to the peer model and perform the action required. Use the peer's name in "Simon Says" games.	
Models a video representation.	Introduce a large screen video in a small room. Show the student pictures of himself or other familiar persons and ask detail question such as: "Where are you? Who is jumping? Is it day time?".	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	When you add video representation of tasks, stop and start the machine as the student performs the task to keep pace and replay sections that the student is having trouble with.	
Recognizes problem and seeks help.	Provide an obvious signal or gesture for help that the student enjoys using, e.g. a bell or a light. Once this is established insist on pairing the signal with the request. Check the student's work; ask "Do you need help?". Watch for problems, then intervene before frustration begins with "May I help you?". Give difficult task then say "Call me if you need help". Within daily routines, introduce the need for assistance so that the student learns to solicit help. Capitalize on natural situations. If no progress made set up situations, e.g. bathroom - no towels.	
Works out a solution to a problem.	Place small obstacles in the student's way so that he learns to overcome these, e.g. change the furniture around, put plastic wrap on the juice glass, or put a chair on top of his teaching table.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	As the student learns to handle these small obstacles increase the difficulty level maintaining a light attitude, e.g. put the cookies just out of reach.	
	Ask guiding questions to subtly assist the student to solve problems.	

CONCEPT FORMATION
C. Visual and Tactile Discrimination

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Identifies familiar objects by sight/touch.	Start with articles that the student uses frequently by himself such as eating utensils, personal grooming aids, etc. Provide a variety of common objects with different shapes.	Spoon, fork, cup, comb, toothbrush, hand mirror.
Identifies objects by size.	Use familiar articles, e.g. cars, dolls, bowls. Use colored clay to teach size discrimination by cutting pieces off clay to increase size differential until the student can detect the difference. Use touch and feel when teaching size.	Pre-Vocational Packages (V.R.R.I.).
Identifies objects by shape.	Use basic shapes that will be meaningful to the student, e.g. ball, stick, box, star.	
Discriminates between wet/dry.	Teach wet/dry at a sink. Reinforce wet/dry concept while washing hands, bathing, checking pants, etc.	The Right to Education Child, p. 24. Pans for water and water pitcher. Sponges, blocks of wood, washcloths, wet sand/dry sand in pails. Hawaii Guide to Severely/Profoundly Multi-Handicapped Child, p. 239

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Discriminates between warm/cold.	Teach warm/cold while washing hands, etc. or when presenting food. Note: Hot is usually used as a danger symbol, "Do not touch ... hot!".	Warm and cold water. Warm and cold settings on hair dryer.
Identifies objects by color.	Note: If progress in color identification is not made consider the possibility of color-blindness. Start with distinct primary colored large blocks, balls, cars. Initially keep object the same and vary only the color. Once the student can identify 3 colors set up color cans: large coffee cans with colored paper around the outside. Choose household and personal articles of similar color and place in the can. Encourage the student to find articles to put in the cans. Use the cans for play times as well as teaching times.	
Identifies whether objects are the same.		
Identifies surfaces as rough/smooth.	Present various surfaces, e.g. carpet/floor, beard/smooth forehead.	The Right to Education Child.
Identifies textures and objects by touch only.	Put objects into bag. Have student reach in and identify objects.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Distinguishes which of two weights is heavier.	Give student empty bags. Fill one; lift the empty one and the full one; identify which is "heavy". Provide situations for lifting and carrying.	Pre-Vocational Package (V.R.R.I.). Vulpe Assessment Battery.
	Use a variety of materials to demonstrate that size and weight do not necessarily correlate.	
Identifies pictures of objects.	Familiarize student with photographs, pictures, etc. in quiet play or morning circle.	
	Place picture and articles side by side. Have student match object with picture. Use colored photographs, first, then black and white, then sketches. Use instant camera where possible.	P.U.S.H.
Identifies differences in pictures.	Use photographs of familiar situations that are similar in all features but one, e.g. pictures of the student, one with a hat and one without a hat; then introduce pre-school workbooks with "find the difference" examples.	Pre-Vocational Package (V.R.R.I.).
Matches photo with drawing of an object.	Take instant picture of a ball. Draw picture of the ball (color it in). Place side by side. Repeat with other articles.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Matches according to two variables at a time (size, shape, color).	Have the student match both size and shape to get the correct answer. Vary the combinations.	Wabash Guide to Early Development Training. Pre-Vocational Package (V.R.R.I.).
Identifies whether objects are the same or different.		

COMMUNICATION

INTRODUCTION

The ability to communicate is particularly important for dependent handicapped students since it provides the opportunity to interact and control the environment. Teachers should strive to make all communication functional, i.e. the student must have a reason to communicate, so that it readily transfers to the daily living environment.

Receptive language is an important skill area which must not be overlooked in either assessment or training. Teachers should monitor how they speak to dependent handicapped students, e.g. use short messages, to ensure that the complete and correct message is received.

In a majority of classes it will be necessary to begin communication training with developing meaning and uses of communication. Therefore, pre-communication skills should be an integral part of the curriculum prior to any formalized communication program.

Due to the severity and multiplicity of students' handicaps, expressive communication may take several forms, for example:

- Picture Boards have pictures/photos placed on a board. A picture board is one of the simplest systems to learn and most easily understood by others. It can provide a very specific and concrete vocabulary, e.g. juice, milk, water, rather than just "drink". The student requires very basic skills: adequate vision and eye or hand pointing skills. However, the student must carry the board at all times and some concepts are difficult to relate in picture form, e.g. verbs.

- Symbol Systems, e.g. Blissymbolics have symbols that represent words. A symbol board can be used by severely handicapped students and understood by others since the word is written below each symbol. It can be very simple or can be expanded to a very complex, abstract level. Symbols are sometimes used with electronic talking devices. The board must be carried at all times, and listeners must often be patient since it takes time to use the board.

- Sign Language is a formalized manual language (whereas gestures represent more natural, idiosyncratic communication patterns). The student's hands can be manipulated to form signs so success can be immediate. It provides two stimuli for students, oral and visual, and requires no equipment. However, good hand function is necessary and signing is not understood by the majority of the general public.

Spoken communication should and can be used with any of the above modes. Alternative methods can facilitate speech development so the student should be encouraged to verbalize even if it is not the primary mode of communication.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Responds to own name.	Have different people call student's name from various directions in the same setting. Use "hands-on" method to direct response.	Systematic Instruction of the Moderately and Severely Handicapped, p. 270. Teaching Research Curriculum for Moderately and Severely Handicapped, p. 151. Teaching the Moderately and Severely Handicapped, p. 48. The Right to Education Child, p. 214. Vulpe Assessment Battery, Auditory Language (Receptive) #12. Portage Guide to Early Education, Language Card #5.
Stops in response to "No" at least 50% of the time.	Use physical deterrent with emphatic statement of "No".	Portage Guide to Early Education, Language Card #14.
	Supply immediate reinforcement when student responds voluntarily.	A Step by Step Learning Guide for Retarded Infants and Children, p. 119.
Listens to rhymes and jingles.	Choose attractive verses and songs with emphasis on those incorporating body movements. Dramatize and use voice changes wherever possible.	Vulpe Assessment Battery, Auditory Language (Receptive), #37. Vulpe Assessment Battery, Play, #24.
Listens to music.	Introduce regular quiet times for listening to music, e.g. after lunch. See Recreation, C.1. Music.	

COMMUNICATION
A. Receptive Language

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Responds with appropriate word or movement to simple commands.	Call student's name to ensure attention. Make commands and gestures clear and exaggerated, e.g. "Cindy, look". Point to object with enhanced arm movement. Model, with staff member obeying command. Teach meanings of verbs to be used in the commands with demonstrations, using doors, etc. Assist student in performance of commands.	The Teaching Research Curriculum for Moderately and Severely Handicapped, ch. 12. A Prescriptive Behavioral Checklist for the Severely and Profoundly Retarded, p. 341. Teach the Moderately Severely Handicapped, Vol 2, p. 49. An Experimental Curriculum for Young Mentally Retarded Children, p. 34. Language Acquisition Program, p. 151. Portage Guide to Early Education, Language Card #16. A Step by Step Learning Guide for Retarded Infants and Children, p. 120. Teaching the Severely Handicapped, Vol 2, ch. 15. Early Self-Help Skills, p. 42. P.U.S.H., p. 116.
Responds with appropriate gestures to questions, e.g. visual search, pointing to object.	Hold object (ball) within close vision range; say "Where is the ball?" Use "hands-on" method to direct gaze, etc.	Vulpe Assessment Battery, Auditory Language (Receptive), p. 183, #20

COMMUNICATION
A. Receptive Language

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Move object within field of vision, no longer holding it; repeat question and encourage pointing.	
With assistance, associates sounds with objects.	Reinforce the student when he responds differentially to different sounds, such as the door closing, the telephone ringing, the vacuum cleaner. Present two musical instruments that the student has played with, e.g. a bell and a drum. Ring the bell and stop. Ask the student to point to "the bell" before you continue to play it. Repeat with the drum. Once the game is established, play drum or bell behind a screen and have the student choose which has been played. Expand the repertoire to include a number of sounds, e.g. shaker, whistle, telephone, door closing, zipper.	A Prescriptive Behavioral Checklist for the Severely and Profoundly Retarded, p. 341. Teaching the Moderately Severely Handicapped: Vol 2, p. 49. Language Acquisition Program, p. 151. A Step-by-Step Learning Guide for Retarded Infants and Children, p. 130.
Follows two related commands, e.g. "pick up (the) ball" and "give me (the) ball".	Prompt student if necessary between the two actions and repeat same commands until student is successful.	A Step by Step Learning Guide for Retarded Infants and Children, p. 130. Portage Guide to Early Education, Language Card #29 and 41.
Identifies objects by function, e.g. things to wear vs. things to eat.	Place two objects before student and ask which serves a certain function, e.g. apple and sock, "Which is worn?"	Portage Guide to Early Education, Language Card # 40.

COMMUNICATION

A. Receptive Language

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
		Educating the Severely and Profoundly Retarded, p. 30. Vulpe Assessment Battery, Cognitive Processes and Specific Concepts, Object Concepts #15.
Listens to stories.	Tell simple stories with pictures, ask simple questions on context. Increase difficulty.	
Associates sounds with objects.	Reinforce the student when he responds differentially to various sounds such as the door closing, telephone ringing, vacuum cleaner. Present two musical instruments that the student has played with, e.g. bell and drum. Ring bell and stop. Ask student to point to the bell before you continue to play it. Repeat with drum. Once the game is established play drum or bell behind a screen, then remove screen and have the student choose which has been played. Expand the repertoire to include a number of sounds, e.g. shaker, whistle, telephone, door closing.	A Step by Step Learning Guide for Retarded Children and Infants, p. 124. Language Acquisition Program, p. 31.
Responds to stories being read.	Exaggerate drama of story and model reaction to stimulate student's reaction when story is repeated.	Portage Guide to Early Education, Language Card #60. Vulpe Assessment Battery, Auditory Language (Receptive) #50.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Listens for details.	Question student after each section of a story is read, starting with sentences and progressing to paragraphs.	Vulpe Assessment Battery, Auditory Language (Receptive) #81. W.S.C.C. #501.18.
Identifies an item from a choice of two.	Place two different items in front of the student. Hold up one object (which would be identical to one of the objects before the student) and ask him to give you the one that is the same. Increase the amount of similarity, relatedness between the objects presented through training, e.g. if the item to be named is fork, the other object might be a ball, then a book, then a dish, then a knife.	
Identifies an object when no model is given.	Proceed as above except do not hold up an identical object so that the student would be asked to find the object.	

COMMUNICATION
B. Expressive Language

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
1. Pre-Language		
The student:		
Demonstrates awareness that he is separate from the environment.	Note: If the student mouths objects, manipulates objects close to the body and never varies the manipulation, he is not separate from the environment.	Prelanguage Communication Programming for the Severely and Profoundly Handicapped.
	The following five objectives are designed to develop his awareness.	
Develops a primary relationship with the teacher (a connection to the outside world).	Begin with or develop a basic movement pattern in the student's repertoire, e.g. rocking, where instructor's behavior is contingent upon the student's movements.	
	Perform simultaneous movement in same physical plane as the student (mutual movement).	
Develops knowledge that his movement can affect the behavior of another.	When student shows awareness of mutual movement by active participation, smiling, cooing, stop and wait to see if the student provides a cue to initiate movement again, e.g. push against the teacher's body, pat.	
Develops a signal-to-movement relationship.	Developed these cues by physical guidance.	
	Add more movements and cues so that an order or pattern of movement is established.	
Takes part in co-active movement.	Sit near, beside, or in front of the student while performing movement.	

COMMUNICATION
B. Expressive Language

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Once movement dialogue has been initiated (due to the separation in space), have student observe and participate in movement.	
	Begin with gross motor movements before fine motor.	
Develops awareness about objects in relation to his body movement (uses the body as a tool for exploring the world).	Introduce objects into movement sequences.	
	Perform an activity co-actively with student.	
Develops body image.	Point out body parts, have student duplicate.	
Imitates (separation in both time and space).	Model a certain pattern, stop that movement and wait for the student to duplicate.	
Uses natural gestures, (learns that body movements and facial expressions can be used to communicate).	Model what the student can do with an object, e.g. tearing motion for paper, pointing to drink.	
	See Concept Formation, B. Learning Readiness.	
Explores his environment.	Assist student to reach for toy, creep towards toy, etc.	
	Provide stimulating, novel things in the environment.	
Uses objects functionally.	Reinforce spontaneous use or exploration of objects. Demonstrate the use of objects; use "hands-on" method.	
	Encourage exploration in all sensory modalities: locating, listening, touching, tasting, smelling.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Associates an object with its label.	Make a point of labeling things out loud. Using pairs of identical objects, e.g. two blue toothbrushes, two trucks, two apples, put one in clear view of the student. Hold up its twin while naming it (signing the word). Ask the student to give the object to the instructor.	
2. Non-verbal		
The student:		
Uses a personalized response mode.	Teach the student to point to objects, pictures, etc. in a consistent way, e.g. index finger, eye pointing. Priorize a list of 5 - 10 objects that are meaningful to the student. Use physical assistance and reinforcement to shape precise pointing, e.g. begin by reinforcing pointing to the general vicinity, then reinforce only more precise pointing.	
Discriminates between two pictures.	Ask student to point to one picture/symbol or the other (with no regard for meaning). Use no fail methods, e.g. tape one in place, eliminate one choice. Place an appropriate reinforcement under one picture.	

COMMUNICATION
B. Expressive Language

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Associates one or two pictures/symbols with their label (meaning).	Hold up one item, e.g. drink. Point to the item, point to the picture/symbol. Point to the student (you want drink) and point to the item. If student touches the picture/symbol saying "want drink", immediately give it to him. If there is no response, use physical assistance and fading to assist the student in pointing. Be sure that the pictured symbols are used in the natural environment whenever appropriate. Determine the smallest size of picture the student can see by experimenting.	
Discriminates between the two symbols/pictures taught above.	Alternate between asking for the first object and then the second.	
Uses an increased number of symbols/pictures.	Use the same sequence: add one symbol, have the student discriminate among the others; add one symbol, discriminate. Make a series of flashcards with symbols; have the student match a symbol to a given sample. Be sure to move the symbols so that the student is not relying on positioning. Once a number of symbols/pictures have been learned, fix them in a standard position.	

COMMUNICATION
B. Expressive Language

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Uses two-word communications (symbols/pictures).	After approximately 10 noun pictures/symbols have been learned, introduce words to use in two-word utterances. After a number of noun pictures/symbols have been learned, introduce "pivot" words to use in a two word utterance. Try using flashcards where the "pivot" word is one color and the noun words are all another color. Have the student match, e.g. green yellow - want - juice - go - coat (cards are) (cards are) (green) (yellow) Introduce two word utterances to use during the day, e.g. "want drink".	
Uses three-word communications (symbols/pictures).	As above.	
Signs one word.	Priorize a list of 5 - 10 words/signs that are meaningful to the student. Begin with concrete objects. Sign and say word simultaneously; hold out object; say and sign the word; extend object to student. If he attempts to sign, reinforce immediately by giving him the object; reinforce verbally.	

COMMUNICATION
B. Expressive Language

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Initially accept approximations, any attempt to sign/ gesture. As the attempt to sign is learned, use shaping and fading to correctly form sign: - "hands-on" method and verbal prompt - guiding and verbal prompt - verbal prompt - independently. If the student does not attempt to sign, begin with "hands-on" assistance in forming the sign. Be sure to use the signs/ gestures in daily environments.	
Signs two words.	Teach as outlined above.	
Discriminates between two signs.	Alternate between the two learned signs; hold out object; say and sign the word; extend object to student. Reinforce immediately by giving the object and praise. Offer object but do not sign the word (no model). Continue to add one word - discriminate; add one word. When the student begins to use one word utterances, model two word phrases - - want ___________ - go ___________ - more ___________.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Uses action symbols.	Teach concept and sign in isolation. Teach in meaningful pairs - want milk; want bread; want toilet.	
3. Verbal		
The student:		
Produces several different vocalizations, e.g. vowel sounds: ee, aa, gutterals.	Repeat any sounds made by student. Reinforce further repetition.	Portage Guide to Early Education, Language Card #1 and #2 (applicable to all skills in this section).
Produces repetitive vocalizations, e.g. ga-ga-ga, with variation in pitch intensity and intonation.	Produce earliest childhood vocalizations if student makes no attempt to vocalize.	Education and Care of Moderately and Severely Retarded Children, p. 62. A Step by Step Learning Guide for Retarded Infants and Children, p. 132.
Produces consonant sounds, e.g. pah, mah, bah.	Demonstrate positions of lips, teeth, tongue, etc. and use mirror to assist student. Relate sounds to natural stimulating situations, e.g. "Mmm" for goodies, "Oh-Oh" when something falls, "Ah" in admiration.	The Right to Education Child, p. 220. Vulpe Assessment Battery, Auditory Language (Expressive) p. 153, #15 and #16. A Prescriptive Behavioral Checklist, pp. 372 - 384.
Imitates sounds.	Record the "speech" repertoire to identify high frequency sounds.	

COMMUNICATION
B. Expressive Language

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	See Concept Formation, B. Learning Readiness for imitation training. Imitate the student's vocal sounds. At first reinforce all speech like sounds, then shape the response by reinforcing only those sounds which came closer and closer to the desired sound.	
Discriminates between and produces speech sounds.	Once the student is imitating one sound, add other frequent sounds until the student can discriminate and imitate up to 5 different sounds. As the student increases his ability to hear sounds, add speech sounds that are not frequent in his repertoire.	Vulpe Assessment Battery, Auditory Language, (Expressive) #26.
Begins to use verbal approximations of words other than mama/dada meaningfully and spontaneously (at least two other words).	Introduce functional words that utilize the student's own speech sounds. Use words frequently used, e.g. juice, mama, hi, up, out, eye, ear, tummy, knee, cookie.	Portage Guide to Early Education, Language Cards #'s 7, 8, & 24.
Uses seven or more word approximations, accompanied by gestures, consistently.		Portage Guide to Early Education, Language Card #22.
Labels objects or activities.	Watch as the student moves about his environment. As he attends to an object, say, "This is a doll"; "What is it?" Prompt response. Refer to a previously learned word and establish that the student can discriminate between the new and old word.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Use the same procedure for activities by choosing a behavior that the student is doing. Imitate the activity and label it.	
	Once the student has developed interest in labelling introduce unfamiliar objects and activities into the procedure.	
	Throughout the day ask the student what he is doing, what is he holding, etc.	
	Ask the student to label what other students are doing or holding.	
	Ask parents, bus driver, etc. to use familiar labels and ask the student to use the label in other environments.	
Identifies familiar sounds.	Add pictures of objects which make sounds if student can use representational material.	DLM Pictures: Match to Sound.
Makes needs known.	Choose an easily discriminated pair that occur in the same situation, e.g. eat-drink and teach the student to listen for the meaning between words.	
Indicates objections.	Teach the student to shake his head or say "no" in an imitation situation.	
	See Concept Formation, B. Learning Readiness, "Yes-No" for further details.	

COMMUNICATION
B. Expressive Language

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Uses two-word combinations.	Ask the student to imitate two-word combinations to see if he can remember both words as soon as he has a repertoire of about 20 words.	Portage Guide to Early Education, Language Card #37 and #42. Vulpe Assessment Battery, Auditory Language (Expressive) p. 161, #59.
Uses functional combinations of words.	Begin to build two word functional groupings, e.g. "More juice" (cookies, raisins); "Hi mom" (teacher, child); "Brush hair" (teeth); "No bed" (cookie); "Go there" (home, out, Mummy); "Want T.V." (music; "Put on/Take off coat" (shoes, pants); "All gone juice" (car, ball); "Please juice".	W.S.C.C. #502.13.
Identifies object in simple pictures.	Present real object and picture of it side by side whenever possible. Name them. Play guessing games.	Portage Guide to Early Education, Language Card #17. Vulpe Assessment Battery, Auditory Language (Expressive) #64, #72, #77, #92, #131, #138.
Demonstrates understanding of two to three prepositions.	Use concrete objects, e.g. block in box, Teddy under chair, etc.	W.S.C.C. #501.05, #502.15. A Prescriptive Behavioral Checklist, pp. 360 - 365.

SOCIALIZATION

INTRODUCTION

The aim of the socialization section is for the student to develop the skills necessary to interact with other individuals. In order for this to happen, it is first necessary that the student is aware of others in the environment, i.e. that he recognizes and responds to other people. Further, the student must be aware of himself as separate from the environment in that he is aware of his own body, i.e. identifies body parts, recognizes own name.

Play skills involve both interaction with objects, e.g. toys, games, and interaction with peers. During this time, socialization skills are consolidated, e.g. sharing, playing.

SOCIALIZATION
A. Awareness of Others

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The Student:		
Responds to personal physical contact.	If the child is very young, hold him close during feeding; cuddle him closely so that he can feel throat vibrations as you speak. Carry the child in front carrier, hold and rock him to feel body warmth.	
	As the child grows older sit with him in an adapted tailor sit position or easy chair so that he can feel your body movement and warmth.	Handling the Young Cerebral Palsied Child at Home.
Indicates recognition of parent, e.g. by kicking, waving arms, vocalizing, smiling.	Announce presence by singing, waving hands, etc.	
	Play tactile games, e.g. "All around garden walked the Teddy Bear". Use appropriate physical contact when speaking, e.g. touch on shoulders.	
	Play "Peek-a-boo" games.	
Smiles or vocalizes when an adult talks.	Model smile accompanied by positive reinforcement, e.g. "Nice smile Johnny".	Portage Guide to Early Education.
Hugs or pats familiar persons.	Show affection openly and encourage student to return hugs by physically prompting.	Behavioral Characteristics Progression.
Differentiates between familiar and unfamiliar persons by reaching for, following, etc.	Use "hands-on" assistance to encourage student to make appropriate physical contact with familiar person.	
	Tie bright ribbons to the student's wrists and gently tug on them to cue him to reach for you while you reach for him.	

SOCIALIZATION
A. Awareness of Others

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Indicates awareness of peers by watching, smiling and vocalizing.	Encourage other children in the family and neighborhood to hold, play and talk to student. Supervise carefully, but encourage the involvement from an early age.	Experimental Curriculum for Young Mentally Retarded Children.
Initiates attention gaining behavior.	Approach the student with something he wants and ask "Do you want some"? Wait until the student makes some response. Fade the verbal question and just hold up the article.	
Greets familiar people.	Establish a set time within the day to teach greeting behavior, e.g. when the student arrives at school, when the student meets the bus driver, when the student arrives home. When the student arrives, establish eye contact and ask him to indicate "Hi" or model the desired response. Once the student has established "Hi" with you, make morning greetings a part of the classroom routine with pairs of students. Establish greeting and farewell routines as a circle activity at the beginning and end of each day. Use the same process when the student leaves school, home, the bus. Establish "Bye" first and then join to the name of the person.	Systematic Instruction of the Moderately and Severely Handicapped.

SOCIALIZATION
A. Awareness of Others

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Permits other student to play with his toy.	Have student play with another student's toy, then reverse. When similiar toys are available, have students exchange toys.	
Displays behavior which indicates recognition of feelings of others.	Draw attention to other student's expressions of feelings, e.g. laughter, tears, anger. Tell stories involving feelings.	
Waits his turn.	Teach "line" behavior when appropriate, e.g. line up for recess, for the bathroom, at a movie. Draw attention to good "waiting".	
Displays sympathetic response to other's distress, e.g. comforts student who has fallen.	During the day include the student in your reaction to other students. Model sympathy and assistance.	
Interacts appropriately with adults and peers.	Model and teach basic social graces, e.g. please/thank you, in classroom, in stores. Ask others to encourage social graces. Monitor the behavior expected in the student's natural setting, e.g. home, community, and teach these behaviors in the community and at school. Draw attention to unhappy consequences of unacceptable behavior, e.g. student crying when hit.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Touches his own body.	Rub the student briskly with a soft towel after bath, swim or clean-up to stimulate him. Concentrate on each body part separately, naming it and encouraging the student to touch the part.	Wabash Guide to Early Development Training ("Toes" program).
Demonstrates sign of recognition when name is spoken, e.g. looks up, vocalizes.	Have different people call student's name from various directions in the same setting. Use "hands-on" method if necessary to turn student's head towards source of sound. Once the student consistently responds to his name, call other names as well, reinforcing only correct response. Use student's name and sign if necessary in all commands. Associate the student's name with his personal objects, e.g. John's brush, John's chair.	The Teaching Research Curriculum for Moderately and Severely Handicapped.
Identifies major body parts.	Following the procedures in Concept Formation, Tactile Awareness, ask the student to touch his and your body parts on commands. Teach hands, tummy and feet first and integrate into daily routines and action songs.	
Watches self in mirror.	Have mirrors in the classroom that the student can lie on, stand on, stand beside, to watch self.	Behavioral Characteristics Progression. Portage Guide to Early Education. Unbreakable mirrors.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Tap on mirror to draw the student's attention to it.	
	Have the student add clothes and remove clothes, e.g. hat, to see change in appearance.	
	If the student has difficulty focusing on the desired spot, spray the mirror with Christmas snow or shaving foam on all surface except the desired area. Wipe snow away as the student learns to attend to the desired spot.	
	Physically position the student so that he attends.	
	As the student attends, have two students compare each other or do simple imitation routines.	
Recognizes own image in photographs.	Have the student take part in taking instant pictures of familiar people in distinctive poses. Compare the photo with the person who holds the pose.	
	Take instant pictures of the student and the mirror image of the student. Show him the picture and point out similarities between the picture and the mirror. Have the student touch his own body parts and those in the picture.	
	Use pictures to mark personal belongings and property, e.g. placemat, corkboard.	

SOCIALIZATION
B. Awareness of Self

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Recognizes function of major body parts.	Combine labelling with actions, e.g. hands clap, feet walk.	
	Model use of body parts.	
	Draw attention throughout the day as the student uses his feet, hands, eyes, nose.	
	Play action games and songs.	
Recognizes sex of self and others.	Divide class into males and females.	
	Use action games and songs, alternating boys and girls.	Hap Palmer records.
	Use life-sized dolls, jigsaw puzzles, and mirrors to illustrate.	
	Play boy versus girl games and have student choose which side he belongs on.	
	Draw attention to obvious differences between Mom and Dad, brothers and sisters.	Teaching the Moderately and Severely Handicapped.
Demonstrates some degree of self assertion.	Reinforce signs of appropriate self assertion.	Experimental Curriculum for Young Mentally Retarded Children.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Responds to toys.	Place toy within easy reach and encourage student to reach for it with either or both hands.	Wabash Guide to Early Development Training.
	Use modelling, "hands-on" method and reinforcement.	Mobiles, moving toys, musical box, etc.
	Carry out these activities in all positions e.g. prone, supine.	
Repeats enjoyed activities.	After student has performed activity once encourage him to repeat it; use "hands-on" method if necessary.	
	Observe student to determine which activity he enjoys.	
	Imitate his activity as a means of encouraging him.	
	Join in activity to make game of it.	
Clasps hands or plays with fingers when hands are brought to midline.	Use finger and hand action games which necessitate both hands being together at midline.	
	Use mittens, bells on fingers, etc. to draw attention to hands.	
Combines toys in an elementary manner, e.g. banging together.	Present toys that can be combined to provide instant reinforcement, e.g. pot lids, cymbals, triangles.	
	Model and use "hands-on" method if necessary.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
With assistance, plays with another person.	Play small games with the student regularly after meals, after nap, at snacktime when he is usually alert and happy. If the student shows reluctance have just one person play and one care for the student. As trust is established introduce other adults. If the student resists participation in play because he is engaged in his own world, gently restrain him until he relaxes, play for a minute or so and thank him for playing: "Thank you. We will play again soon".	
Plays simple structured games.	Present game or toy and systematically teach the use by using "hands-on" method with backward chaining, e.g. play the game with the student until the last step then just prompt him to complete the game. Repeat until the student can play the game on his own with your encouragement. Use games or toys with satisfying completion, such as rolling a ball to another person. Model peer play by playing with another teacher/student pair. Roll a ball between the pairs, first with feet touching, then further apart. Fade out your presence and supply encouragement.	Helping the Mentally Retarded Acquire Play Skills.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
With assistance, engages in group play.	Choose games which require a number of players. Begin by playing the game in one to one situation and gradually make it a small group game, e.g. baseball, musical chairs, "Simon Says", "Drop the Hankie".	
Plays sequence game.	Show effects of manipulation of various play things, e.g. ball thrown into water creates a splash. Play games with the student involving sequential steps. Teach imitation of the first step, e.g. when building block tower to be knocked down. Have student initiate game by handing over first block and knock down tower.	
Interacts with other students.	Provide games that require another participant for enjoyment, e.g. chasing, throwing ball, teeter-totter. Praise cooperative efforts. Have student roll a car or truck to another person.	
Seeks peer company during leisure time.	Encourage peer interaction at play period. Make games available, which require another player for enjoyment, e.g. teeter totter. Reinforce approach to peer by verbal praise and assistance in starting game. Set up games which require two players and send student to find another player.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Engages in leisure activities	Find a game or activity appropriate to the student's developmental level; offer activities at a slightly higher level to provide challenge. See Recreation, E. Leisure.	Ball games, bean bags, trikes, hopscotch, puzzles, activity centre, large motor equipment, e.g. slide, swings, tire tubes, large boxes.

1. Definition of Behavior Problem

It is important to differentiate between "behavior problems", e.g. self injurious behavior, aggression to others, and behavior which may be related to immature or slow cognitive development or lack of learning, e.g. poor impulse control, repeating activities, not attending.

A number of factors influence all behaviors. In an attempt to assess a behavior problem, a functional analysis of behavior should include the following steps. The teacher should:

a. define the individual student's behavior:

- excesses: typical behaviors which occur too often or too intensely, e.g. too much shouting, scratching, talking about something all the time;
- deficits: behaviors that are not demonstrated, e.g. lack of social conversation;
- strengths: the student's ways of controlling his environment, his awareness of staff;
- weaknesses: low response rates, behaviors which occur infrequently or incorrectly;

b. identify the persons who are involved in the problem behavior situation and who will be affected by a change in the student's behavior (noting their potential influence on the student). This should also include a description of the conditions in which the behaviors occur and what happens after the behaviors occur;

c. outline the developmental history so that biological, sociological or behavior changes that may be pertinent can be noted, sequence of skill acquisition, changes in family structure, etc.;

d. identify the social, cultural and physical environment of the student so that norms and environmental restraints are noted.

2. Causes/factors Contributing to Behavioral Problems

Environmental influences: positive reinforcement and punishments used; consistency of persons who deal with the problem behavior; lack of stimulation; expectations of significant others; physical restraints; amount of psychological structure defined by those in the environment.

Medical influences: unusual behaviors may be a side-effect of medication. Therefore, teachers should be aware of medications, their effects and side-effects, etc. (see Self Care, Medications Considerations). In addition, biochemical imbalances may affect behavior, e.g. thyroid conditions, nutritional imbalances. Ongoing medical consultation is extremely important.

Neurological factors: since neurologically based problems may be more resistant to change/intervention, the teacher may need to adjust his strategies, e.g. limit self-stimulatory behaviors rather than extinguish. Examples of neurological factors might include general irritability. Further psychological and medical advice may be required.

Fatigue and stress: it should be noted that mentally handicapped persons often experience fatigue and stress when entering new situations or in meeting new and increased expectation levels; these factors can create transitory problem behavior and can lead to more chronic patterns if not handled when first observed.

Underlying issues or problems: fear or anxiety may generate a number of "problem" behaviors, it is therefore important to know something about the student's personal history and preferences that have developed.

3. Intervention Techniques

Intervention techniques include a large variety of strategies, most of which are behavioral in nature. Since it is extremely difficult to describe even the major techniques adequately, a few important reminders along with a list of resource materials follow. Behavioral strategies imply defining behaviors in observable terms, measuring baselines of performance, monitoring changes; recording results of interventions modifying programs based on data collected and setting specific objectives as long and short-term goals. When considering a behavioral change program for a student the teacher should:

- contact a resource person who is familiar with behavioral techniques and strategies, e.g. Behavior Support Team;
- analyze the behavior to determine its annoyance value:
    - is the situation precipitating the problem
    - is the behavior creating a danger for the person
    - does the behavior interfere with other aspects of the student's life or is it specific only to situation;
- carefully analyze and establish a baseline for the "problem behavior":
    - identify and behaviorally define the behavior and baseline, the relative frequency, duration or magnitude of the behavior to determine strategies for intervention
    - identify the reinforcers (both positive and negative) which maintain the behavior;
- analyze the intervention proposed to determine:
    - the likelihood that the intervention will produce results
    - the accessibility of the problem

    - potential for change, i.e. does the teacher have the resources and skills to follow through
    - what are the probable costs of intervention, including time, money, energy and resources
    - the likelihood that the new behaviors will be maintained in other or new environments;
- be sure the student is seen by a medical doctor to ensure that there are no medical factors contributing to the behavior problem. It may be helpful to discuss a proposed strategy with the doctor to ensure that there will be no side-effects, e.g. if meals or fluid intake is decreased;
- check with advisory board or refer to local, established guidelines to ensure that the proposed technique is considered acceptable, e.g. provincial guidelines;
- utilize punishment procedures only after all others have failed. A monitoring advisory system should be in place;
- discuss the proposed intervention strategy with all persons who are involved with the student, e.g. student's parents, residential staff, to ensure that each person will be able to follow through. Modifications may be necessary to allow for the program to be carried on in other environments.

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PURPOSEFUL ACTIVITIES

INTRODUCTION

This subject area is a departure from traditional education because it includes skills that are generally learned and practised outside of school hours. Many dependent handicapped students require structured teaching to enable them to learn the skills necessary to function in non-school environments. Because these students rarely transfer skills from school to the natural environment most educators are now proposing that the teaching be done in the non-school setting. This involves changes in timetabling to allow students to leave the classroom with a teacher on a regular basis and it requires that teachers and support staff be skilled in analyzing and adapting skills in a wide variety of settings.

There are five sections in Purposeful Activities: Orientation, Daily Routines, Work Skills, Home Skills and Community Skills.

Orientation considers skills which will allow the student to adjust to or accommodate his basic environments: home, school, neighborhood, e.g. finding his way around home and school, and those conventions and routines which he must adhere to to be a member of the setting, e.g. standing in line.

Daily Routines and Work Skills initially relate to the skills necessary to learning to learn in a school environment and end with some examples of how to prepare the student for a post school vocational environment. It is essential that preparation for work begin early and that the student be expected to learn good work habits. It is recommended that work experience become a regular part of the curriculum once the student has reached 14-16 years of age, starting with weekly visits and increasing to half time by the time the student is in his last years of the program.

Home Skills should be taught in conjunction with the student's family or residential staff to make sure that the skill that is being taught will be practised at home. Close cooperation in this area can enhance the student's participation in the home and may encourage the family to initiate other ways to involve the student in family routines.

Community Skills are particularly important for dependent handicapped students because their changes to learn many of these skills is usually severely limited. Community training should be:

- directly transferable to home and their next environment
- individualized: field trips with groups of students are likely not effective because so much of the trip is taken up with "crowd management". Outings with 1-3 students with a definite teaching purpose work best
- designed to maximize the students interaction with persons who are not handicapped, e.g. securing assistance and direction, basic greetings, etc.

The following are only examples of purposeful activities and skills. The individual program should be based on a thorough evaluation of the student's home community activities.

PURPOSEFUL ACTIVITIES
A. Orientation

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
With assistance, moves to various rooms in the house or school.	Establish room-appropriate activities in preparation for later routines; move throughout all rooms in a day for activities. Use various means of conveyance: carrying, pushing, pulling.	
Moves from place to place within one room.	Encourage and reinforce the student to move about the room by calling him to see and do things in different locations.	
Moves from place to place on one level.	Remove the most harmful articles to make common areas safe but leave a few "no" or "danger" articles about to teach "don't touch".	
Finds his own room in home and school.	Use backward chaining: take student to within a few steps and let him find his room; then gradually increase the distance to the room. Make the room noticeable: paint the door or door jam a bright color, put a picture of the student on the door, etc. Lay big footprints to mark the path; use arrows or string.	

PURPOSEFUL ACTIVITIES
A. Orientation

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Demonstrates some awareness of new situations, e.g. stairs, strange dogs, engine noises.	If the student seems oblivious to possible dangers draw attention with a raised voice.	
Approaches new situations with caution.	If the student is overly fearful of new situations encourage him to explore. Use a quiet approach to prevent alarm.	
Negotiates various surfaces.	See Motor Skills.	
	Set up a play area with large sections of tarmac, sand, rocks, pavement, ramps, stairs and varied levels. Introduce each section in a structured manner, then encourage free play.	
Plays in an enclosed yard.	Mark off a small confined play area with flag or rope and increase the site gradually.	
With supervision, plays in open area.	Use above strategy, clearly mark limits.	
	Pair verbal cues to return with the physical prompts. Fade the physical prompts as the student attends to call to "stop" or "return".	
Associates room with specific activities.	Have student anticipate the room by announcing the activity close to the room and allowing the student to follow through, e.g. "It is lunch time, where do we go?". Encourage student to initiate room appropriate activities upon entry.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Identifies different materials as belonging in different rooms.	Start with one well used personal article per room, e.g. toothbrush - bathroom, bowl - kitchen. While near the room give the student the article and ask him to return it to its proper place. Gradually increase the distance so that he has to make room choices.	
	Ask the student to get a familiar article.	
	Increase the number of articles gradually; have the student return the articles to the appropriate rooms.	
Opens and closes doors.	Clearly identify the door knob. Establish a backward chain: have the student push open the door after you have used "hands-on" method to close doors which would normally be left open; have student practise.	
	Put tape or other non-slip surface on knobs to allow the student to grip the knob securely.	
	To teach opening "push" doors teach the student to hold on to the bar and push into the door so that the door starts to open with the first forward motion.	

PURPOSEFUL ACTIVITIES
A. Orientation

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	See Motor Skills: Fine Motor. Encourage student to explore the total play area by having structure games in various corners.	
Identifies his house.	See "Finds his room".. To help the student locate the house on the block: - put a flag by the sidewalk - point out distinguishing features of the house, e.g. chimney, tree in front.	
Follows accepted practices in the school, e.g. lining up.	Mark out a practice area within the school and teach when no one is around. Use dividers, bright lines, footprints, etc. to teach student to stay in the areas marked, e.g. walking on the right. Teach quiet walking and discourage unruly behavior both in practice sessions and when the occassion arises. Have students line up in washroom and water fountain in non-busy times with a few students. Increase the number of students gradually.	
Locates washroom, gym, office and homeroom.	As student is being led to a room remove physical guidance and have the student walk in front. Start with one room, e.g. bathroom. Use backward chaining as in "Finds his own room".	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Start the student out and alert staff in destination to watch for arrival; repeat on return.	
Recognizes basic community signs and symbols.	Teach the signs in context, enhancing the cues which help to distinguish the sign, e.g. make the shirt on the ladies washroom sign red, then fade to black. Associate the signs with something meaningful, e.g. for washroom signs, put pictures of men and women along with the child's picture on the appropriate door. Teach only those signs that are used consistently in the student's life. Introduce international signs to the school to denote danger areas, do not enter, stop, etc.	
Responds to weather conditions, e.g. comes in out of cold or rain.	During actual situation draw student's attention to rain or cold. Model shivering, etc. and prompt him to go indoors; gradually fade the prompt. Follow up with warm sweater or cuddle.	
Operates familiar locks: safety bolt, lock and key.	To teach opening a safety bolt put brightly colored tape on the belt knob and on the left hand of the lock. Teach the student to push/pull the colored knob to the matching tape.	

PURPOSEFUL ACTIVITIES
A. Orientation

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Collaborate with parents to determine which locks the student should learn to open.	
	Practise on safety bolt board that can open the door to a treat box.	
	With lock and key paint around the key hole with nail polish and paint the key's teeth to match.	
	Teach proper holding position for the key and have student place other hand around the lock or on the door knob to steady the lock and guide the insertion.	
	If the student cannot insert, have him practise with larger keys and larger key holes.	
Demonstrates awareness of what to do when lost.	Have the student carry a wallet with identification inside so that if he becomes lost, he can show it to someone.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Note: Routines play a crucial role in the life of the dependent handicapped student for without the ability to respond to large parts of the day through well learned routines, the learning of new material would be extremely difficult. The dependent student must be taught to perform many of the routines and work skills that are taken for granted with the regular student.	
Anticipates daily routines.	Early in life, establish regular routines in keeping with later expectations. Signal the beginning of a routine in a manner which the student can understand, e.g. touch his lips before feeding, close his eyes at nap time, splash water on his hand at bath time. Perform the same routine in the same location and at the same time each day. Watch to see if the student anticipates your signal and reward.	
Participates in simple tasks.	Make sure all students participate in simple tasks. Analyze the tasks in the school, home and community and select those which have the greatest interest and utility for the student, his parents, teachers, etc.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:	Use "hands-on" assistance. As the student begins to anticipate, i.e. starts the next step on his own, remove the physical prompts for that step. If the student does not anticipate, use backward chaining. Once the routine is established remove the guidance for the last step and encourage the student to finish the task. Gradually add more of the steps to the backward chain.	
Follows basic daily routines	Set routines around the key times of the day such as arriving, eating, departing. Once these routines are established divide the day further into work times, toileting times, exploration times, juice and treat times, and rest times. Lead the student through the routine using physical prompts as necessary until the student can follow the routine with only verbal or signed prompts and reinforcements. Establish out-of-classroom routines within local recreation facilities, shopping malls, etc.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Takes part in group activities.	Start with two students at usual group times, e.g. music time. Allow time for the students to become accustomed to being with one another and waiting. Gradually work up to small group.	
	Lay out a play area with enough toys to go around and encourage students to play in the same area.	
Helps put materials away.	Establish "putting away" routines as soon as the student sees materials.	
	Make sure that storage areas are at the student's level and that he can open the doors, etc.	
	Mark the student's spaces with a picture of himself, a favorite drawing, or color.	
	Use consistent marking for all of the student's personal materials.	
	Mark the bins/spaces for materials clearly, e.g. trace scissors on the pegboard, put a picture of cans on the shelf for cans, etc. Use this also as a practical match to sample exercise.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
With supervision, demonstrates knowledge of daily routines and moves from activity to activity.	Once the daily routine is established, prepare a picture board or flip chart with the various activities on cards. Have the student remove the cards as he goes to an activity leaving the next card as a visual prompt. When he is familiar with the cards leave them in a central location for reference. Pair the student with a student who knows the routine until he is familiar with the routine and then fade out the model's assistance. Prompt before a change in activities.	
Initiates lunch or recess behavior on an external cue.	Draw attention to the external cue and the desired response by modelling what to do. Cue ahead of the bell and practise with the student, e.g. "The bell is going to ring soon ...", then prompt the student when the bell rings only if necessary.	
Operates common equipment such as telephones, tape recorders, radio, record players, etc.	Have student assist when using equipment. Purchase easy-to-operate equipment. Teach the student to use equipment that is available at home. Encourage personal use of equipment in free time.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Uses common tools.	Establish proper use of common tools such as felt pens, pencils, scissors. Teach the student to get the tool, use it and return it to its proper place.	
	Using "hands-on" method, teach a variety of hand tool operations; preferably those that will be used by student in future.	Nut driver, Robertson or Phillips screw driver, hammer, pliers, coping saw, vise, stapler, pencil sharpener, hole punch, tape dispenser.
	Start with large tools that do not require much co-ordination and move to more detailed work as the student masters the skill, e.g. start with a rubber mallet on clay and gradually move to using hammer and nails; start with a large nut driver with a nut that moves easily in a stable piece of wood and move to teaching the use of a screw driver.	
	When teaching use of hand tools set aside a "work area" that has tools clearly labelled and a variety of wood and plastics.	
	Use physical prompts and backward chaining when teaching the student to hammer a nail or screw in screws.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Performs simple routines, e.g. stuffs and stamps envelopes.	Use large envelopes with cut out sides to make it easier to insert materials.	Various sizes of envelopes, variety of inserts.
	For stamps, mark the spot to be stamped. Use different colors of ink for variety.	Date stamps, block stamps, stick on stamps, postage stamps.
	Use "hands-on" method to teach the correct hand positions and movements and fade prompts.	
	Once the student is familiar with the procedure set up an assembly line.	
	Have parents send letters to be stamped to the school. Have the student mail in the neighborhood mail box, with supervision.	
Visits and works in a variety of "work" settings within the school or home.	Establish work opportunities, e.g. one room in a home or school building and analyze the work required.	
	Early in the school program, take the student to the work setting to watch other students working.	
	Take the student to the work setting and establish which parts of the work he can do. Teach the routines and have the student work at that setting on a regular basis.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Recognizes work orientation.	Set a work area aside in a work setting or a "workshop" and try to encourage the use of volunteers who are familiar with the materials.	
	If volunteers are available, model work behavior, responding as you would want the student to respond to a "boss".	
	Set out a quota of work to do and draw attention to the progress in completing the work. Eventually set quota and tell student to come when he's finished.	
Returns to a task after a break.	Ensure that there is enough work to return and draw attention to the work to be done after the break.	
	Remind the student when he leaves for a break that he must return at a specific time or signal.	
	Prompt the student just before the time to return to watch for the signal.	
	Pair the student with a student who does return promptly.	
	Reinforce the student for returning.	

PURPOSEFUL ACTIVITIES
C. Work Skills

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Attends a task through minor distractions.	Set up the activity area with a minimum of distractions until the activity is established, e.g. back to the windows, away from the traffic pattern.	
	Establish with the student a quiet cue to return to work when he is distracted, so that he can be reminded without interrupting others.	
Sustains attention to task throughout a 10-15 minute period.	Set the criterion for what "attending" means, e.g. not working while talking, not looking up from work. Once you have defined attending to the task make sure that all staff and students understand what is expected.	
	Set a timer (a short time within the student's capability) and reward student for attending that period of time. Gradually lengthen the time required for reward.	
	Provide stimulating work to maintain interest.	
Responds to requests to work faster.	Give the student a set amount to do in a time period of five minutes. When it is established that he can produce at that rate, increase the quota and tell him that he is going to work faster now.	
	Pair the student with a faster worker.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Sit with the student and match his speed, drawing attention to your equal pace; then ask him to increase his speed to match yours.	
Distinguishes finished from unfinished work.	For assembly work have separate containers for finished work with distinguishing pictures on fronts. Teach the student to put finished work in one of the bins and then check each piece with him to make sure that it is complete. Have him place the checked work in the next container. Later, have the student check his own work and then reward him for the correct sorts. If he has difficulty noticing the difference between finished and unfinished work, prepare a set of goods with a noticeable cue on the unfinished parts. Use the same procedure in teaching the difference between acceptable and unacceptable work in a natural work setting.	
Works as part of an assembly line.	Mark each student's spot to work. Introduce each student to the routine separately so that each knows his routine. Then pair students and finally establish the whole assembly line.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Make sure that the bins for work are clearly labelled and that the work moves in one consistent direction.	
	Follow the material down the line for the first few times to ensure a smooth flow and to reinforce that they are making something together.	
Performs clerical routines:		
- collates	Start with two pages and work out a system that will allow the student to work with a rhythm.	
	Use finger stalls to increase the ability of students to pick up the paper.	
- staples and stacks paper	Cue the location to be stapled then fade.	
	Use wooden box with one end cut into a "V" so that the papers are stacked neatly.	
- wraps and tapes packages	Draw the placement of the object on the paper. Tape the first fold onto the package. Work in pairs so that one person can hold the package steady.	
- labels packages.	Mark the location of the label.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student: Performs workshop tasks:		
- fills boxes and bins, using two hands	Start with large, light objects in boxes at waist height. Find/develop a contract packaging potting soil, cereal, etc.	Styrofoam chips, blocks, chips of wood, macaroni, etc.
- groups objects together	Start with elastics that are small enough not to need a twist. Start with one wooden dowel and teach the student to place the elastic around the dowel. After trying 2-5 smaller dowels, switch to straws, toothpicks, etc. Have students also do grouping with tape. Start with the large dowel and precut tape stuck on the side of the table. If the student has difficulty holding the articles together glue a juice glass to the table and place the straws, etc. in the glass to allow him to get a good grasp of the objects. If the student cannot judge where to place the tape or the elastic, either mark the location and fade the prompt or place a cover on the juice glass to hold the straws steady and to act as a guide.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
- assembles articles	Use task analysis.	
	Try to set up contracts with fast food chains to pre-package utensils. Also accept small contracts if students can go and do work in a natural setting.	
- builds small woodwork articles	Do task analysis on each article chosen and each step taught, carefully, to ensure that the students are safety conscious.	
	Have students make small planters, shelf units and bread boards as projects.	
- lifts and carries boxes	Demonstrate lifting techniques and carefully monitor the student when he is learning the skill because proper stance often feels awkward and is soon forgotten.	
	Start with empty boxes about 60 cm square and then vary the size of the boxes adding weight as the student masters the grip.	
	Make carrying boxes into a game for relays.	
- stacks boxes	Be sure to teach bending skills prior to teaching stacking.	
	Start with the 60 cm boxes and build 2 box stacks, using a corner for support until the student gets the idea of a stack.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Have the student build stacks with a match to sample method, e.g. have two-box stacks, three-box stacks, etc. If the students can master stacking try to sub-contract with a local supermarket to stack produce boxes.	
- uses dollies and trolleys.	Be sure to teach this skill in an open space. Use an empty trolley (push one) and teach the student to start, stop and turn corners before adding materials.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Note: The following list of home skills is not meant to be exhaustive. Teachers are urged to add/change objectives to include those skills which are part of the student's daily life.	
Puts toys in proper place.	Have the student return toys to containers, increasing level of difficulty. Start with blocks to box and increase to exact placement of toys in kits, e.g. instruments in toy medical kit. Follow with stacking toys and cans in play situations. Transfer to work situations.	Vulpe Assessment Battery, Activities of Daily Living, Play #48, Dressing #17.
Tidies up own area, e.g. bedroom, desk.		Vulpe Assessment Battery, Cognitive Processes and Specific Concepts, p. 200.
Participates in housekeeping activities, e.g. vacuuming, dusting, taking out garbage.	Create an awareness of when it is appropriate to perform each task. Demonstrate the easiest manner of performing each task.	
Participates in table-setting/clearing activities.	Have a tea party; have student assist in setting/clearing table.	Vulpe Assessment Battery, Activities of Daily Living: Feeding, p. 278-279.
With assistance, washes/dries dishes, operates dishwasher.	Have student assist with washing (plastic) dishes; wash dishes after tea party.	
With assistance, uses some appliances, e.g. toaster, kettle.		

PURPOSEFUL ACTIVITIES
D. Home Skills

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
With assistance, prepares drinks, e.g. coffee, juice.	Have the student assist with each of the following tasks, gradually increasing his degree of participation.	
With assistance, prepares simple foods, e.g. soup, snack, sandwich.		
Participates in cooking/baking activities.		
Participates in food storing/preserving activities.		
Participates in laundry activities, e.g. sorting, putting in dryer.		
Participates in yard-care activities, e.g. raking, mowing.		
Interacts with pets:		
- pets an animal	Start with quiet, well trained animals. Provide an opportunity for the student to explore and initiate petting. Guide his hand if necessary. Assist the student in being gentle.	
- walks a dog	Have student assist in putting the collar and leash on a dog. Have the student hold the leash to attach it to his wrist so that the student experiences the dog's motions.	

PURPOSEFUL ACTIVITIES
D. Home Skills

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
- assists in feeding pets	Have student observe feeding the animals and participate, e.g. carrying bowls, finding the food.	
- assists in cleaning and caring for pets.	Have student observe and participate, e.g. emptying hamster or bird cages, fish or turtle bowls. Have student assist in grooming pets.	
Distinguishes between family pet and other animals.	Expose students to other pets and animals.	
Participates in providing basic plant care:		
- waters plants	Have the student find the watering can, lead you to the plants and water the plants. Begin with "hands-on" assistance so that the plant receives an adequate amount of water.	
- mists plants	Be sure that the mister is easy to operate (the trigger type of sprayer may be easier than a pump type). Begin by letting the student rest his hands on yours to experience the motion. Have him feel the spray so he is aware of what action he is producing.	
- assists in repotting	Have the student assist to line the bottom with stones/chips, place the seeds and to fill the pot with dirt.	
- positions plants.	Have the student participate in moving the plants into/out of direct sunlight.	

PURPOSEFUL ACTIVITIES
E. Community Skills

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
1. Neighborhood Skills		
The student:		
Plays in front yard.	Mark "allowed" area (wagon across the sidewalk, portable fences, etc.). Clearly mark road as off-limits.	
	Play with the student, modeling and leading him around the allowed area.	
	Have other child play in limited area.	
	Gradually remove barriers and then gradually withdraw supervision.	
Greets neighbors and familiar passers-by.	Sit with the student on front steps in the evening and say "hello" to familiar persons.	
	Encourage the student to respond to greetings and to initiate greetings.	
Visits/runs errands in immediate neighborhood.	Have the student get the evening paper or mail from the mailbox as a regular responsibility. If necessary adapt the mail or paper holder so that the student can reach the articles and carry them indoors.	
	After modelling the procedure, send the student with small gifts or message to the next-door neighbor; call ahead to alert her of the visit.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	If the mailbox is close, have the student post letters. Teach "mailing" first, then backward chain the procedure, i.e. complete trip together except for the last few steps and let him complete trip, etc.	
Participates in neighborhood games.	Encourage student to watch children playing, e.g. sandlot, baseball. Find way for the student to be included, e.g. guard the can in "Kick the can". Provide some games for the neighborhood children that student can play as well.	
2. Travel Safety/ Transportation		
The student:		
Complies with travel safety procedures, e.g. for strollers and car seat.	Introduce car safety seat before using it in the car. Do not leave the student in it for long periods of time. Be sure that it is comfortable and that the student is well positioned.	
Travels with an adult in the community.	On a regular basis take the student on short trips so that he learns to anticipate outings. Once the student is familiar with the routine outings, e.g. to get groceries, mail letters, introduce novel outings. Be sure to allow the student structured time to learn about the new settings.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Use various modes of travel to destinations: walk, car, bus, taxi.	
	If the student wanders or runs away use a travel harness to keep him close without having to hold him. Fade as soon as possible.	
Moves along sidewalk.	Teach these skills in the student's home territory, e.g. his neighborhood, the shopping centre, the school. Once he walks properly with you allow him to walk slightly ahead to allow "independent" travel.	
Walks over raised thresholds and up or down one step.	Teach this skill in a familiar territory. Draw attention to the curbs and only if the height cue is not sufficient use temporary markers, e.g. red tape. Have the student stop when he reaches the curb, e.g. to check for cars.	
	With the student on the curb and you on the street, hold the student's hand(s) to provide support. Gently pull your hands back to eve the student. Or provide assistance while behind the student. Hold the student around the waist or chest and gently push your knee against the student's to initiate movement.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Steps up and down curbs.	Clearly mark the threshold and draw the student's attention to it as he approaches by taking his hand or reminding him. Fade prompts.	
Stays with a group or partner.	Have students hold hands; use guide rope. Practise in class first, then going to assembly. Practise on field trips.	
Identifies familiar landmarks.		
Identifies and avoids two or three danger areas.	Each time the student enters a danger area say "No!" and firmly remove the student to another area. Do not reward the student by playing with him immediately after removal.	
With supervision, crosses street.	Practise street crossing on street section which is not busy. Teach the student to wait until traffic stops and others walk before crossing the street. Do not allow crossing guided only by light change (the lights indicate a busy intersection).	
Demonstrates awareness of dangers of traffic.	When walking on sidewalk teach student to walk along inner side. Draw attention to dangers of traffic. Take student into traffic situation.	
Follows basic safety rules.		

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
With supervision, uses public transportation.	Note: If travel training is not feasible on a regular basis, ask for a bus "loan" on off hours or teach bus skills in a stationary bus at the garage.	
	Point out the differences between the school bus and public transportation.	
	Practise waiting for the door to open, walking up stairs, depositing coins, sitting, opening exit door and leaving bus.	
	Practise with a group to simulate crowds: waiting in line, finding an empty seat, walking around people.	
	Take short trips outside of rush hour to establish usual bus routines, e.g. home to school or work.	
	Teach a capable student to supervise a less able student.	
3. Visiting Friends		
The student:		
Visits with adult/classroom volunteer.	Encourage volunteers to take a special interest in 1 or 2 students, e.g. play games, provide snack.	
	Have volunteer take the student on trips around the school, around the neighborhood, store, etc.	

PURPOSEFUL ACTIVITIES
E. Community Skills

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Encourage the volunteer to invite the student out to his home during school and/or non school hours.	
	Reinforce the friendship by helping the student anticipate the friends arrival. Use friend's name, words "like", "friend", "do things together" etc.	
	Assist student to prepare by selecting a toy/treat for the student to suggest to reinforce reciprocal nature of friendship.	
Visits with same age non-handicapped friends.	Encourage students from regular (or less handicapped classes) to visit or assist in the classroom. Encourage the visiting student to develop a "special friend" interest.	
	Take the student to visit his friend in his classroom.	
	Encourage the friend to take the student to the playground, etc.	
	Encourage family to invite the friend on an outing or home for a visit.	
Visits with classroom friend.	Watch for early signs of friendship and arrange pair activities.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	If both seem to enjoy the company, encourage them to seek each other out (place friends sign/picture on choice board, etc.). Arrange for shared experiences in playground, community trips, etc. Collaborate with parents to encourage visits.	
4. Stores and Restaurants		
The student:		
Identifies coins and bills as money.		
Makes simple purchase in neighborhood store, e.g. milk, paper.	Set up simulated store in school. Establish routines as expected in community stores. Contact the store and allow student to pick up required articles, carry the money (correct change), pay for the purchases, carry the articles home.	
Demonstrates acceptable eating behavior.	See Self Care, C. Eating.	
Visits fast food outlets (where food is available on demand).	Establish selection procedure and choices. Arrange times to teach 2-3 students the ordering procedures after the students are used to the process of entering the restaurant, sitting down and eating. Increase the amount of student responsibility until he can order on his own, pay and eat his meal.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Visits local restaurants for a quick meal (chips and milk, doughnut, etc.).	Prearrange visits during quiet times and assist staff where necessary. Order as above.	
Orders food in cafeteria line.	Start with a few foods and little choice until the routines are established.	
Identifies meeting place, e.g. in shopping area.	Be sure that each student is well labelled with name and meeting spot in case he becomes lost.	
Negotiates various doors, e.g. automatic, push bar doors.	Make trip to shopping area to practise doors. Help student to adapt to swinging doors by watching others, going through with you in front, beside and finally behind.	
Identifies store function by window display.	Once the student is familiar with one type of store draw attention to the differences between it and the adjacent stores.	
Demonstrates appropriate in-store behavior, e.g. looks at articles but does not touch.	Point out articles as you shop. Reinforce appropriate behavior. If the student does pick up an article, say, "Yes, that is nice, now where does it belong", and have him put it back.	
Participates in purchasing of articles.	Have student stand in line and present article for purchase to cashier.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Give him the money and guide payment. Reinforce connection between the exchange of money for article.	
Participates in choosing article.	Select an inexpensive item that can be purchased with some regularity, e.g. a can of juice, comic book.	
	Pull 2 articles from the shelf or isolate them on the shelf and ask the student to select one, put other one back.	
	Reduce cues until student can enter store and make choice.	
	Using a flip chart have student select choice (picture and word) and convey this to the clerk.	
	Make such trips a regular social outing as well as an opportunity to learn a functional skill.	
Assists in grocery shopping.	If student is in a wheelchair attach basket and place articles in basket, describing each choice and why it was needed.	
	Ask if certain articles were picked up to encourage student to survey the contents.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:	Have student assist in selecting articles and placing them in the basket, pushing the basket, matching to sample from grocery picture list.	
5. Activities and Facilities		
The student:		
Stands in line and waits his turn to buy a ticket, e.g. for movie.	Practise in school at film times. Provide hand held games or transistor radio if the wait will be long so that student can entertain himself. Teach purchasing as before.	
Locates seat or wheelchair area.	Practise on field trip to theatre. Be sure that the student can see from the location. Practise leaving seat area and returning in dark. See Recreation section for additional activities.	
Assists in taking clothes to laundromat or dry cleaners.	Have student help pack up clothes and allow him to carry some of the clothes. Have student assist in routines; teach him to run small errands in the laundromat, e.g. ask person for change.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Visits doctor/dentist.	Arrange visits even if no serious problems exist; visit waiting room, ask nurse to take student on tour. Reward good behavior.	
Visits other services used by family, e.g. car wash.	Task analyze and teach normal family routines with the family to allow the student to participate.	

RECREATION

INTRODUCTION

Recreation activities should be an integral part of the dependent handicapped student's curriculum. In addition to providing enjoyment, they can often be used as a means of practising skills. For example, motor training can become monotonous if done over and over, but if done to music, as a game, or in the water, practice become enjoyable and rewarding.

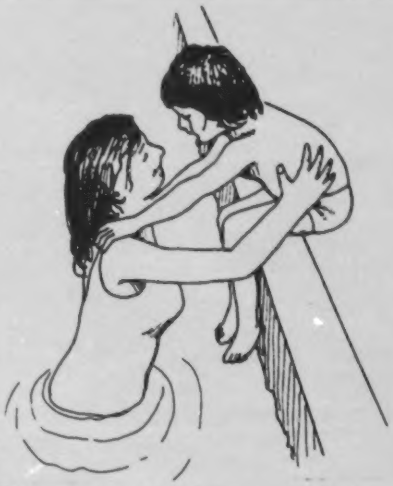
Water activities are particularly important for the dependent handicapped student. As therapy water aids respiration due to pressure on the chest wall; its buoyancy effects release the student from restrictions of chairs and crutches, and it creates freedom of movement; it also helps to develop balance skills. As a learning experience, it provides new visual, auditory, tactile, and social experiences. As recreation it provides relaxation, pleasure and relative independence along with the opportunity for close human contact. Water is fun and an experience the handicapped and non-handicapped can share equally as well. Methods of handling the handicapped student in water can be based on the Adapted Aquatics by the Red Cross Society and/or the Halliwick Method.

Dependent handicapped students, regardless of disabilities, can partake in many recreation activities requiring only minor (or creative) modifications. For example, many sports or physical activities often require only a change of rules, e.g. walking rather than running, smaller area; ramps can be used in bowling so that almost all individuals can take part.

The remaining portion of this section lists a variety of creative activities that a dependent handicaped student might engage in. It is not meant to be an exhaustive list, but will assist the teacher in generating ideas that are most applicable. The student should be allowed to be creative in all types of activities so that he may take pride in creating something that is his own.

RECREATION
A. Water Activities

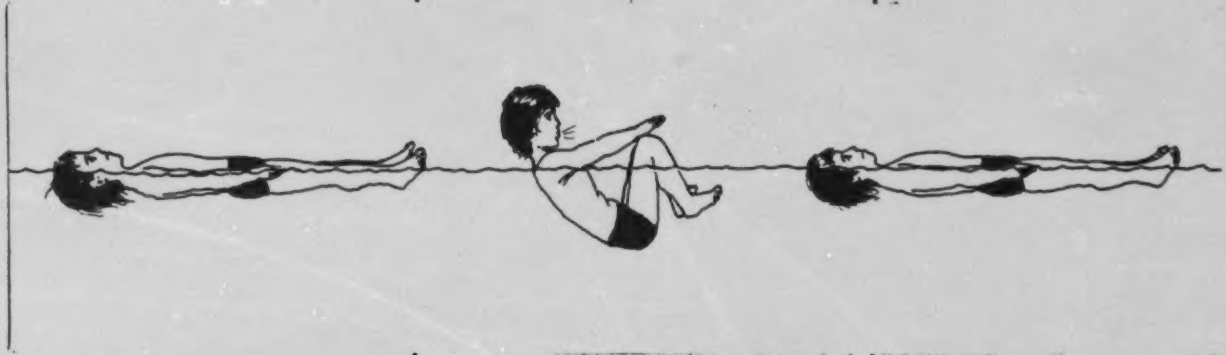
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Adjusts to pool atmosphere.	Make area as pleasant and non threatening as possible; add toys to water.	Colorful floating toys, beach balls, etc.
	Break up water surface to as small as reasonable by use of ropes, floats, toys.	Flotation ropes, buoys.
	Play familiar pleasant music, or sing songs.	Tape recorder and cassettes.
	Pick pool with warm temperature, not too noisy or busy.	
	Precede swim trips by water play, blowing activities.	Candles, straws, balls, toys with holes that make bubbles when pushed down.
Enters the water.	Enter pool yourself first - go in water gently so there is little splashing, duck yourself down to get wet, do not appear cold, but always relaxed, comfortable and happy.	Adapted Aquatics. Manual for Teaching Swimming to the Disabled. Handling the Disabled Child in Water.
	Have student sit at edge of pool facing you. Have him gently splash feet in water, give him water to feel with his hands and rub over arms, legs, face.	
	Allow for adequate time at this stage to reduce any fears.	Balloons, balls.

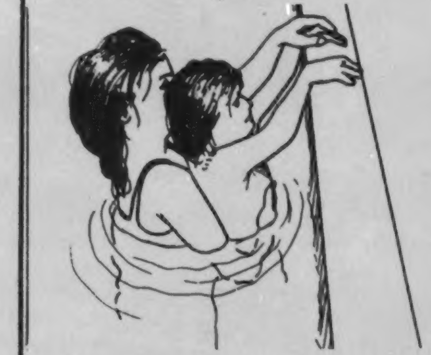
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:	 Encourage student to place hands on your shoulders so he is leaning forward. Talk reassuringly, telling him to blow as he comes toward water. Place your hands on his back just below shoulder blades so you can exert pressure and bring him forward in water and prevent him from extending back. Stand with a wide base so you can easily step back when receiving student. Gradually reduce hold on student from "hands-on" to none so he leans forward himself and comes to you in water by himself - blowing as he comes.	
Adjusts to inwater environment, e.g. play activities, bouncing around in water.	Play games or sing songs with which the student is familiar. Introduce water activities that could be transferred back to the classroom, e.g. "Ring Around the Rosey", ball games, water toys (to use in water trays), balloons.	

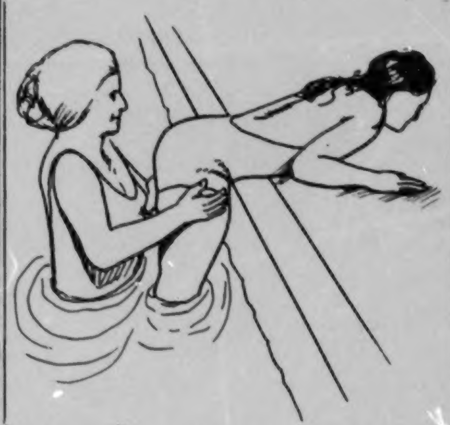
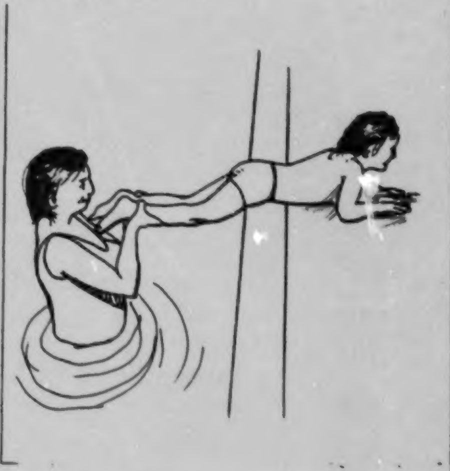
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Develops head control.	Work closely with a therapist at this stage to assess the student's natural body position in the water and to counteract any deviant positions, e.g. a student can correct an involuntary body roll by turning his head, extending arm or leg in direction opposite that of tendency to roll. Have student begin learning control with body curled up and swinging through water; gradually uncurl and reduce support as control is gained. For a student in a wheelchair, wheel the water chair in and encourage the student to put head back on the water to feel the body rise. Be sure to support the student because buoyancy can be felt by the student as lack of control. Draw attention to the impact of head positions on the body position in the water.	
Blows in the water.	Note: The student can learn the properties of water by enjoying water play but a basic response of "blow when near water" must be taught early and continually reinforced. If necessary teach this breathing as a conditioned reflex, e.g. prompt, then reinforce whenever student's face is near the water.	Ping pong balls, balloons, straws, candles.

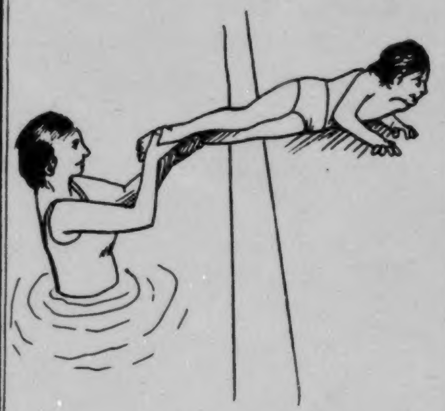
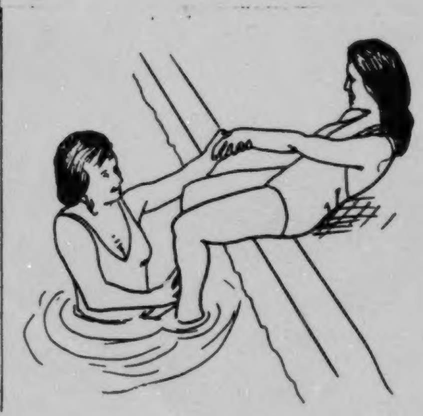
OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Develops knowledge about water buoyancy.	Encourage the student to push light objects under water so they rise to surface when released. Later, when the student can blow and is in control of his body, introduce rotation activities and games which take him to the bottom of the pool.	Rubber ball, balloons, hockey puck, quoits.
Participates in other water activities.	Note: Standing, turning, walking forward, backward, sideways and jumping are simple skills but should be acquired as a basis for independence and preparation for swimming. Begin all activities with the stable "ball" position. Gradually change this to the "stick" position to achieve more finely balanced movements. As breathing control develops introduce activities that will take the student underwater. Play games retrieving plastic jar lids from deeper water. Always watch that student is "blowing" and if he is going to gather any lids teach him to keep his eyes open underwater.	Balls, colorful toys.
Moves independently in the water.	As the student's adjustment to water develops, encourage greater activity. At all times support only if required to learn the skill, allowing the student maximum control over his own body balance and activities.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student: Recovers to a safe breathing position from forward rotation.	Start with the student in back lying position (hold as little as possible). Get him to reach forward with arms, bending knees up toward chest, and blow out as he comes to a sitting position. Reverse the procedure - as in lying down - and breathe in.	



Exists from the water.	Note: A method of getting out over the side of the pool which the student can eventually manage independently is important. He may not always swim in a pool where steps or a ramp and help are available to get him out. Have student put hands on wall. Hold the student just below the hips. 	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:	Then have the student wriggle forward while pushing on his hands.  Lift the student's legs straight to clear the water, then have the student move forward. 	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:	Assist the student in rolling by gently crossing his legs.  Assist the student in sitting up.  Note: There are several other important elements in the student learning to control his own body by experiencing and controlling the effects of water. These are definite steps in the Halliwick Program and should be learned from an instructor who is familiar with these techniques.	

RECREATION
A. Water Activities

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The following objectives are presented for discussion with a swimming instructor and therapist for those students who are ready to move toward independent movement.		
The student:		
Performs forward recovery without assistance.		
Submerges readily when requested.		
Blows out with face submerged in water.		
Performs rolling recovery back to front to back.		
Opens eyes under water.		
Enters water without assistance and gains balance.		
Exhales and inhales without getting water up the nose.		
Performs "jelly-fish" float.		
Exists from water unaided.		
Practises drown-proofing techniques.		
Pushes off and glides in the water.		
Sculls (as adapted to his needs).		

RECREATION
Water Activities Considerations

1. The Halliwick Method

a. Introduction

The Halliwick Method was developed specifically for physically handicapped students because normal swimming methods do not always succeed with them. The primary aim of the Halliwick System is to help the handicapped student establish stability and mobility in the water. The student's position in the water is determined by his shape in the water. The student progresses through a series of steps:

(1) Mental adjustment to a new environment;
(2) Disengagement - becoming less dependent on others in the water;
(3) Balance restoration - being able to remain upright in the water, to roll in the water, to achieve breathing position;
(4) Balance in still and moving water;
(5) Independent movement using simple hand movements;
(6) Swimming adapted to physical needs.

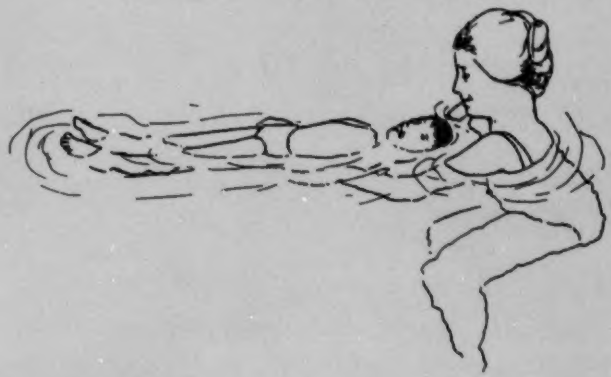
b. Holds

Support should be minimum required to give student opportunity to control his own body balance and activity. Initial support should be reduced gradually as skills are acquired and safety ensured.

Hand holds should not include gripping as this creates tension to the swimmer, but full palmer contact with fingers straight.

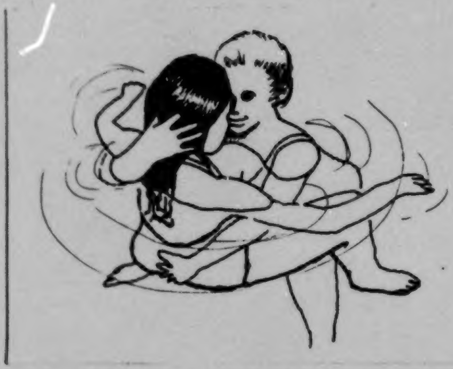
Strategies:

Hold the student at the centre of balance of the body, just below waist level - whether facing him or not, whether lying or in sitting position. Assume a safe, stable position yourself, bend close to student.



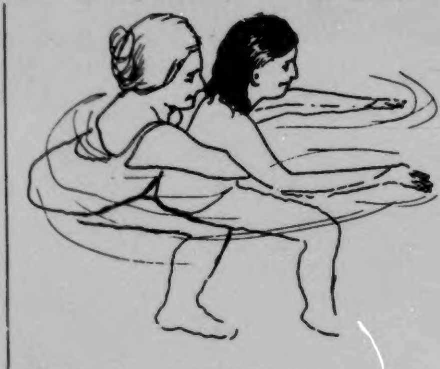
Facing Hold - Facing the student, stablilize him on his pelvis with your arms at full stretch and your fingers pointing away from you.

If you are using a facing hand hold then turn your palms upwards and let student place his hands on yours - at all times keep the hands in the water and let him use your hands as a platform to work from.

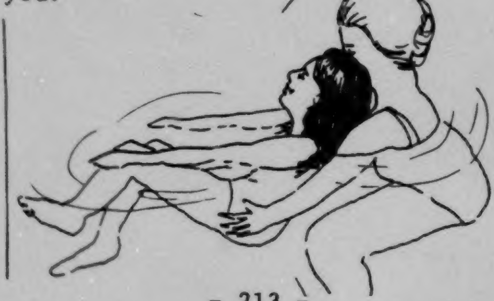


Backing Hold - A student who is severely handicapped can sit on your lap and you can put your arms forward to control him.

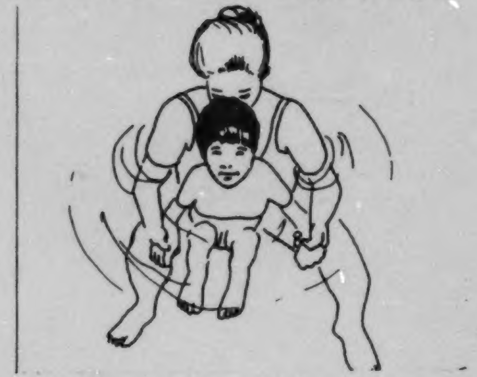
For the more able student you can stabilize at just below the waist with your fingers pointing forwards and encourage him to keep his arms and hands forwards if he is in the upright position.



When you require student to lie back in the water, place your hands just below his waist level with your fingers pointing towards his feet. Then tell him to put his arms forwards, bend his knees as if he is going to sit on a chair, put his head back slowly until he is lying. Encourage him to put his head on your shoulder at first, but later when he is happy to lie back in the water you can bring him in front of you.



For activities that are in the "Ball" shape you need to hold as in illustration.



This hold may need someone on either side of the student, but activities in this position are an excellent way of helping him understand that if he moves his head, his body will swing.

In-water stability and balance are particularly critical and good head control is very important. To improve head control always begin teaching control of the body swinging in a curled up position, gradually unrolling the body as head control is gained.

2. Adaptive Equipment

- nun's cap constructed from a 200-250 mm. wide, 1,000-1,200 mm. long sheet of plastazote which has been heated in the oven and molded to the back of the student's head, allowing a 300 mm. wing coming from each side of the head. It can be strapped on the head if necessary. It encourages head buoyancy so the student can float on his own. The cap can be removed or faded out as head control and buoyancy develop.
- water wheelchairs to enter and exit the pool.
- avoid the use of floatation equipment. It destroys the student's balance and ability to learn to control his own body in the water.

3. Orthopedically Impaired

- with cerebral palsy students, watch for neck extensions so they do not hit their heads on the wall.
- for a student in a wheelchair, wheel the water chair in and encourage the student to put his head back on the water to feel the body rise. Be sure to support the student because buoyancy can be felt by the student as a lack of control.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Performs the following arm movements:		
- grasping objects	Have the student grasp a variety of objects, differing in texture; see Fine Motor Skills, grasping.	Sponge balls, bean bags, cloth balls, balloons, ping pong balls.
- dropping objects	Start with light weight hand size ball. Have the student drop the object. Assist student to turn hand over to drop; assist by moving thumb and little finger.	Beach and water balls, etc.
- rolling objects	Provide physical assistance in rolling a ball. Have the student sit between your legs and place student's hands under and behind ball, raise hands off ground to affect roll, roll to a partner. After the student notices the impact of "roll" by lifting hands, teach lift and push simultaneously.	Principles and Methods of Adapted Physical Education.
	Later, have the student roll it to you.	
	Experiment with a variety of objects, e.g. cylinders, tin cans, fruit.	
- trapping objects	Place hands to trap, then roll ball into hands; use two hands at first.	
	Physically assist the child to "trap" a rolled object by using two hands to "stop" it.	Sponge ball.
	Use various balls, from big to small, lightweight to heavier; begin with large, slow moving ball.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
- catching objects	In a sitting or standing position physically assist the student in catching a ball by "cupping" his hands in an outreached position so that the ball can fall into it, e.g. drop ball into hands from a few cm. up to 25 cm. then gradually move away to provide an arc to the ball.	
	Use a soft ball that will easily fit into the student's hands, e.g. sponge ball.	
	Begin using two hands, later use one. Vary speed and positioning of the throw so that the student must attend to ball.	
	Determine which type of movement would work best for the student and begin to teach throwing, underhand, side or overhand, in the preferred position, e.g. wrist movement, half arm, full arm.	
- throwing objects	Physically assist the student to move his arm in an underhand swing motion and to release the ball when the arm/hand is forward. Assist the student by stopping his arm at the elbow when it is in the appropriate position for release.	Bean bag.
	Vary the size, weights, and texture of objects.	Ping pong balls, balloons, etc.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Have the student aim at a large target such as a laundry basket (do not use bouncing balls for this). Decrease the size of the ball and increase distance away from the student.	
- swinging a bat, hockey stick, etc.	Position the student on his side, in a sitting or standing position. Use a cardboard or light plastic stick, etc. Physically assist the student in swinging the stick to hit a stationary object so he can see what effect his movements have. Later use a slow moving object. Vary the object used.	
Demonstrates acquisition of skills related to:		
- rolling	Place the student on a blanket and gradually lift one end causing him to roll. Physically assist the student to roll, gradually fading assistance so that he completes the roll on his own. See Motor Skills, A. 2. Mobility.	Adapted Physical Education and Recreation.
- running	Use a ramp to encourage fast walking.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Hold the student's hand and run backwards pulling him forward.	
	Have the student grasp your waist or shoulders from behind and run.	
	Play chasing games.	
- kicking	Teach kicking in backlying, sidelying and sitting position first by suspending a balloon above the student's feet and assist to establish motion.	
	Physically assist the student to swing one leg to kick a stationary ball placed before him; use a large but light ball.	
	Have the student walk forward to a stationary ball and kick it; then have him kick a moving ball, e.g. roll or kick it slowly to him.	
- bouncing, e.g. on trampoline	Use an individual trampoline with holding bar to familiarize the student with the bouncing motion.	Kangaroo balls, rocking/bouncing horse, individual trampolines with holding bars.
	Have the student sit, lie or stand with you to experience the motion.	
	Assist the student in a bouncing motion.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
- jumping (off)	Hold hands lightly and encourage student to jump by moving hands up and down; model the jump as you say the word. Hold just one hand, or both hold a bar or a towel. Physically assist the student in jumping off of a small object, one foot first; later, two feet together. Use the last step of the stairs, low platform, box, etc. Provide jumping activities like jumping off of a different medium, e.g. paper, over a rope, into a hoop, into water or mud; play games or sing songs that involve jumping.	
- jumping (up and down)	Physically assist the student to bounce up and down while stationary, e.g. hold him at the waist and jump up and down simultaneously. Decrease the amount of assistants given; help the student up and let him down on his own; then have him bounce and move forward at the same time.	
	Start with a gradual slide, e.g. incline board; then use slide with built up sides (as with a chute).	
- using a slide	Have the student sit between legs and slide down with him. Decrease the amount of physical contact.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Sit the student at the top and have an assistant catch him at the bottom.	
	Use a paddling pool with an attached slide. Fill the pool with foam chips, etc.	
- climbing	Have the student climb up steps, e.g. on a slide, with you close behind him.	
	Have the student climb onto objects. Start at ground level; gradually increase height. Provide physical assistance.	
- performing a combination of movements.	Combine a variety of movement activities in a sequence, e.g. obstacle course. Use jungle-gyms, climb-through tires, etc.	
Participates in individual physical activities and sports:		
- tricycling	See Motor Skills Section.	Tricycle.
	Start with ride-on toys or tricycles without pedals so the student can experience the motion.	
	Pull the student using a rope.	
	Try pedal cars or paddleboats.	
	Use obstacle courses, noise-makers on the spokes, mirrors; have races.	
- using a wagon	Begin with pull toys that are light weight and have noise makers.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Pull the student in a wagon so that he experiences the motion. Attach an infant seat to the wagon if the child is small, or attach side supports on the wagon. Have the student pull some object or person in the wagon; provide assistance, then fade. Have the student pull the wagon around obstacles.	
- fishing	Begin by having the student using a fishing net attached to a pole. Use a stick with fishing line attached or a pocket fisherman rather than a fishing pole, to start. Provide practice by having the student use magnets and toy fish, e.g. in a small paddling pool.	
- kite flying	Use inflatable kites or helium balloons that rise without a lot of running. Attach end of string to ring in ground so that it does not fly away. Use fishing pole to fly kite as it makes handling the string easier. Have the students assist in making kites that they can fly. If using a fishing rod and reel, use adapted handles with bicycle handle grips. Be sure to adhere to safety rules, e.g. staying away from power lines.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
- horseback riding.	Use riding schools that have well trained ponies and paddock horses. Ride with the student to give him confidence. Lead the pony, have student hold a large handle/pommel or a bicycle handlebar to provide stability. Provide adapted saddles and seat belt if necessary; have the student wear a helmet.	Adapted saddles, seat belt, a safety helmet.
Participates in dual physical activies and sports:		
- playing catch	As the student demonstrates the acquisition of fundamental skills, have two students practise the skills together, e.g. throwing, kicking, passing ball back and forth. Have the students play with the ball from stationary position, then introduce movement, e.g. in adapted soccer, basketball, volleyball. Have each student indicate that he is about to throw the ball. Have the two students play "against" each other, e.g. kick throw ball into the other student's net.	
- bowling	Start in the classroom with skittle bowling, weighted milk cartons; then 5 pin bowling.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	First, emphasize the ball rolling down to hit the pins; then emphasize releasing the ball; then the formal rules of the game, e.g. resetting the pins, counting number of balls thrown.	
	Physically assist the student in throwing the ball either using two hands (between legs) or one hand (underhand throw along side of the body). Fade assistance as appropriate.	
	Use a light metal rack which provides a track for the ball to travel down, from the student's lap to the alley floor; use a pronged stick to push the ball from a stationary position on the floor; use a chair without arms for better movement; try lawn bowling as well.	
- croquet	Use adapted croquet with 2 or 3 large hoops; playground game to encourage integration.	
	Have the student begin by just hitting a ball with a mallet then hitting it through a wicket. Use a trench line between the ball and hole.	
- golf/miniature golf	Use one or two large holes (large juice cans in ground), with small trench lines between the ball and the hole; fade out supports and introduce the students to miniature golf course.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Begin by just swinging the (plastic) golf club to hit a ball then have the student aim for a target.	
- horseshoe/ring toss	Have student stand close to a waist height post and place a padded ring over the post; then shorten post. Begin close in and have the student move back gradually.	
- air hockey	Increase the size or shape of handles to enable better grasp.	
- ping pong	Use adapted game as for the blind with high sides and a ball with sound. Push ball with a hand paddle. Have students bounce beach or utility ball across the table.	
	Try attaching handles to the student's hand so that a simple gross movement will move the ball.	
	Scoop out ends of the table for wheelchairs to fit into.	
- basketball	Use lowered baskets and larger hoops.	
	Physically assist the students to throw the ball into the basket and to bounce the ball; then to move and bounce the ball simultaneously.	
- volleyball	Have the students throw and catch the ball over a net or blanket.	
- T-ball.	Have a number of students positioned to catch the ball.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Position the ball on the T-ball stand and assist the student in using a baseball bat to hit the ball. Note: Other sports such as soccer, floor hockey, hockey, field hockey, broomball, are also possible for students who have mastered the concepts of "game".	
Participates in winter activities:		
- ice skating	Provide protective equipment, e.g. pads, helmets. Pull/push the student around the ice; have him slide on ice; e.g. on boots. Try bob-skates that are attached onto the student's boots; have him move about with a skate on one foot and a boot on the other. Use side rails, boards or a chair, etc. for support.	
- curling	Make curling rocks by filling a coffee can with cement, then fitting in any type or length of handle to suit individual needs, e.g. hoops, adapted handles, long handles for use with wheelchairs. Shorten the sheet length and increase the height of the sides.	
- snowshoeing	Provide assistance or some object for support to begin with if necessary, e.g. stick, cane, chair.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
- cross-country skiing	Use equipment that physically disabled skiiers use to provide additional support, e.g. ski poles with ski attached.	
- sledding, tobogganning.	For tobogganning, pair student with an adult to start. Send pairs down a small hill with an adult at bottom to stop the movement.	
Demonstrates awareness of rules and fundamentals of sports in group activities, e.g. turn-taking, care of equipment, cooperation.	Assist the student verbally and physically, e.g cue student when it is his turn, assist him to reset equipment. Decrease assistance as the student demonstrates awareness.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
1. Music		
The student:	Note: Music is more than a pleasurable experience: it introduces elements of control; it helps the pre-speech student listen and imitate sound; it helps students gain control over body movements. However, music should not be used as a background stimulus for students who have a tendency to rock. For these students music should be used only during active participation exercises.	
Listens to music: radio, record player, etc.		
Responds to music.	a) active music: Announce start of music, list the student up, dance to music, play active games. Choose rousing music with a variety of definite beats. Use music to announce activity periods. b) quiet music: Sing softly to the student at quiet times: in rocking chair, bedtime, nap time. Play lullabys at bed or rest time so that the student becomes familiar with the melody and the concept of soft music at rest time.	Hap Palmer records, Raffi records.
Manipulates rhythm instruments to make sounds.	Leave shaker, bell, etc. close to the student. If the student has limited grasp, tie bells, etc. to his hands or onto a bright pair of mittens.	Shakers, tone bells, sticks, finger cymbals, noise makers.

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Be sure to stabilize the instrument or to place the student in the proper position (side lying, over wedge, etc.) to allow maximum movement.	
	Sit with student in lap, tailor fashion and rock to music so that he can feel your motion.	
	Sing along to emphasize rhythm and gently tap tambourine in time.	
	Be sure to choose slow music with a definite beat if the student does not respond to rhythm easily; use spirituals, etc.	
	Gradually allow the student to make the instrument move while you maintain the singing and rocking movement. Then fade out the singing and the movement.	
	Emphasize rhythm in daily routines by singing with naturally occurring sounds: brushing teeth, grating carrots, washing machine, coffee perk.	
Claps hands to rhythm sounds.	Hold one hand steady and direct the student's other hand to clap it.	
	Emphasize the sound by using finger cymbals.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Moves feet in time to music.	Start by teaching foot "stomping" to marches while sitting down. Walk to music while holding hands to teach student to sway arms to music. Sing out beat of the music while marching or using percussive instrument to emphasize the beat. Provide opportunity for student to "dance". For a student with problems hearing the beat, tie colored ribbons around his knees and gently pull up on the ribbons to cue the beat.	
Stops moving when the music stops.	Cue the stop before the music stops. Physically stop the student when the music stops.	
Use rhythm sticks, one per hand, alternating and in tempo with the music.	Stand behind the student, use "hands-on" method to drum familiar marching music.	
Vocalizes with music when sung to.	Encourage the student by singing with him as he vocalizes, imitating his sounds. Using animated singing, head moving, etc. encourage the student to move and vocalize with you.	
Imitates high and low sounds.	See Concept Formation, B. Learning Readiness, Imitation.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Exaggerate the pitch and cue with high and small action for high sounds and low and large actions for low sounds.	
Associates melody sounds with activities.	Set routine instructions to music, "This is the way we brush our teeth", etc.	
Repeats body movements to song games.	Set aside regular time for singing games, starting each session with familiar songs. Provide one to one ratio in games to guide the students. Adapt movements to the student's repertoire so that each student is able to participate.	Wheels on the Bus. Happy Music to You.
Sings or requests favorite movement songs.	As the student learns to talk, encourage him to add words to his favorite songs. For non-verbal students adapt the favorites to manual signs, moving the arms in time to the music.	
Participates in rhythmic activities.		
Reacts appropriately to music: hand clapping, singing, dancing.		
Operates entertainment equipment, e.g. radio, record player, television.	Have student complete last step so that he receives immediate reinforcement, e.g. pushing the button on the tape player.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
2. Crafts		
The student:		
Paints with his fingers, hands or feet.	Secure heavy paper in a position the student can reach: on the floor, a table; raised for a wheelchair or stretcher.	Paint smocks and art materials.
	Mix heavy finger paint using liquid soap or corn starch. Put liquid detergent in finger paints.	
	Pour mixture into centre of page and press student's hand into the mixture helping the student make designs. Be sure that the student is watching.	
	For a variety add scents to the mixture or add macaroni to the picture once it is finished.	
Crumples and tears paper.	Present brightly colored tissue and, using "hands-on" method with a palmer grasp, crumple paper. If the student has difficulty grasping the paper place a ball under the paper. Present a variety of paper to crumple.	
	Using "hands-on" method, grasp newsprint with one hand and tear toward student with the other hand.	
	Introduce smaller pieces of paper to encourage the student to use a pincer grasp.	
	Have student make things out of paper mache.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Pile up the bits of paper and let the student play with them; when finished, have the student paste the bits onto colored paper.	
Uses felt markers, crayons, chalks and pastels.	Use large washable felt markers and adapt grasp to the student's ability; use "hands-on" method, tape felt pen to hand, etc.	
	After free play with colored felts, draw a tree trunk and have the student scribble on leaves or draw a face and let the student scribble on the hair.	
	Use simple wooden templates or stencils and assist the student to scribble inside the template.	
	Make rubbings by placing cut out shapes or texture blocks under paper.	
Cuts, glues and tapes.	Place paper in wooden jig to hold it steady; use training scissors (with loops) to cut along press.	
	As the student masters straight cuts, paste cardboard stencil shapes to the paper and have the student cut between the edges.	
	Glue shapes onto heavy paper using rubber cement; glue wood blocks onto plywood; glue old household articles onto wood.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Have student make pet rocks for presents, etc.	
	Have student glue wood, fabrics, pictures, etc. onto old picture frames as gifts.	
	Use brightly colored tapes in pre-cut lengths and let student put them on paper, on himself, on envelopes, on sticks, etc.	
Manipulates clay.	Start with edible playdough and assist the student to squeeze, roll and shape the dough. Use cookie cutters or commercial dough presses, cut the dough with plastic knives and play tea.	Edible playdough: 2 cups flour 1 cup salt 2¼ cups water 2 tbsp. oil 2 tsp. cream of tarter (Heat in saucepan until thick, knead until a good consistency, add coloring.)
	Make beads or mobiles (press dough onto strings); air dry or bake.	
	Use the dough to make personal foot and hand prints. Bake and give to parents as dishes or ash trays.	
	Store dough in individual plastic bags with student's name on than in refrigerator.	
Makes block prints.	Secure heavy paper or fabric in an accessible position for the student.	
	Make a variety of prints from potatoes, sponges, styrofoam, commercial block prints.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Have student use hands and feet to make prints. Put down a large sheet of wrapping paper or an old sheet and let the students walk about with paint on their feet and hands.	
Participates in creative crafts.	Find a craft that the student can participate in at home or later, e.g. simple rug hooking, salish weaving, seed painting. Sit with the student and assist him to do a part of the craft, e.g. hand you the wool, shoot the shuttle, punch the needle.	
3. Movement		
The student:		
Explores environment through movement.	Physically assist the student in moving parts of his body to experience different positions, movements, etc. Use games that make big movements and small movements, e.g. "Blind man's bluff", "Hide and seek", "Follow the leader", etc.	
Explores environment through movement in different media.	Have student put hands or feet in substance. Have the student sit, stand or lie either near or in a variety of substances: sand, mud, uncooked macaroni, styrofoam chips; have him play with and manipulate the substances.	Water table that can be filled with water, sand, hay, etc.
Demonstrates rhythmic movements through exploration in space.	Assist the student in moving various parts of his body to the music.	Hap Palmer records.

RECREATION
C. Creative Activities

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	When student initiates movement, match appropriate music to match his movements.	
	Use percussion, rhythm instruments to emphasize the beat.	
Imitates movements.	Perform mutual rhythmic movements and co-active movements to music.	
	See Communication, B.1, Pre-Language.	
	Display a certain pattern, stop the movement and wait for the student to duplicate. Play games like "Simon Says", action songs, etc.	
	Begin with gross motor movements then refine to fine motor movements; start with one movement and combine movements into a sequence.	
	Have the student observe and imitate others.	
Engages in spontaneous movement.	Have the student participate in free movement to music. Vary the beat and the tempo to coincide with the student's moods, actions, activities, etc.	
Cooperates with a partner in rhythmic movements.	Have two students imitate each other, e.g. one initiates, one duplicates. Assist if necessary; use music, action songs, dance sequences.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Participates in simple dances.	Have the student perform a sequence of movements, actions to music, either alone or with a partner. Provide mirrors for all creative movement activities.	

RECREATION

D. Outdoor Activities

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Participates in a variety of outdoor activities:	Expose the student to the environment first through short visits.	
- nature walks	Have the student walk on a variety of surfaces and textures. Provide opportunities to touch, feel, smell, hear and taste different objects. Have the student collect rocks, leaves and flowers, butterflies (to be pressed, mounted, etc.).	
- city and provincial parks	Have the student use park facilities, e.g. playground equipment.	
- farm trip	Be sure that the students are used to animals before the trip. Go in spring when young animals are around, as students react better to smaller animals.	
- picnics and camping	Start with familiar foods in new environments. Take along familiar place mats, chairs, etc. when starting the picnic exposure. Plan regular outdoor trips for snacks, then lunches. Vary foods and treats once routines are established. Move to new locations and explore immediate area before starting meal.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
	Have students take an afternoon nap in the outdoors as a special treat; take along sleeping bags or familiar blankets.	
- zoos	Watch a display for some time, pointing out the animals' movements. Choose the monkeys or other active display to start. Visit the petting zoo.	
- hayrides	Be sure that all safety precautions have been taken, e.g. sides on the rack.	
- paddleboat and boating		
- pet care	See Purposeful Activities, C. Home Skills. Provide the opportunity for students to care for pets, feeding, grooming, emptying litter tray.	
- gardening.	Start a small garden in a plot, planter, etc. Have the student water the plants, pull the weeds, monitor progress, etc.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Participates in solitary leisure activities:	Participate in these activities with the student; provide reinforcement and encouragement.	
- playing with puppets and stuffed animals	Have the student choose a "special friend" to be with during unstructured times of the day; play puppet games together to model what to do with animals/puppets.	
- playing with a balloon	Have the student play with a half filled/filled balloon; have him hit and catch the balloon.	
	Create static by rubbing and place the balloon on the student; fill the balloon with water, sand, salt to provide different types of stimulation.	
- blowing bubbles	Encourage the student to catch and pop bubbles when someone else blows them.	Program Development in Special Education.
	Assist him in waving the wand to make a bubble; have him blow bubbles.	
- playing with hand held games	Using "hands-on" method assist the student to play with the games, pointing to effects created by activity.	
	Use paddle bats (ball on an elastic), go-ball, etc.	

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
- playing with "moving" toys	Assist the student in moving the object; encourage him to retrieve the object.	Toy trucks, cars.
- looking at books and magazines.	Choose a variety of cloth books and large colorful paper magazines.	
Participates in table activities and games.	Provide a variety of puzzles, building games, electronic games, card games, etc.	
Participates in matching games.	Provide a variety of paper/pencil activities, e.g. "busy" box, train set, etc.	
Makes a scrapbook.	Have the student collect objects, pictures of particular interest, to mount in book. Use photo albums so that the pictures are protected and can be changed. Have student share scrapbooks with parents and friends.	
Starts a collection.	Collect items that are familiar to the student, e.g. bottlecaps, postcards, pictures. Have student swap items with others. Help the student find a spot to display or keep the collectibles. Model going over the collection, looking at each, arranging them, etc.	

RECREATION
E. Leisure Activities

OBJECTIVES	TEACHING STRATEGIES	MATERIALS
The student:		
Pursues a hobby.	Assist the student in developing the skills necessary to carry out a hobby at home, e.g. painting, string art, rug hooking, needlework, clay modeling.	
Operates home entertainment equipment.	Have the student operate tape recorder, television and radio during appropriate times of the day.	
Participates in leisure activities with one or more person(s).	Assist the student in: card games, table games, Bingo, etc.	

APPENDIX A

CHECKLIST/OVERVIEW

CHECKLIST/OVERVIEW

While the overview is not a standardized functional assessment, it can be used to chart a student's progress over a number of years by identifying yearly objectives and their outcomes.

The method of charting depends on local conventions, but should include:

- designation of those objectives which have been achieved
- goals for the year
- the degree of accomplishments, e.g.

0. not accomplished
1. complies with or is aware of activity/skill
2. requires physical assistance
3. requires supervision and verbal prompts
4. performs skill in structured environment
5. transfers skill to natural environment.

Sample:

MOTOR SKILLS
A. Gross Motor

1. Posture	Sep.80	Jan.81	Jun.81	Sep.81	Jan.82
Sits in a chair and displays good posture.	5				
Sits on floor in various positions:					
- cross leg sitting	0	0			
- side-sitting	2	2			
- long sitting	1	2			
- sitting with flexed knees	1	1			
- heel sitting	0	1			
- straddling a roll.	1	2			

Student Name: ______________________ Date of Birth: ______________________

School: ______________________ Teacher: ______________________

MOTOR SKILLS

A. Gross Motor

1. Posture

Sits in a chair and displays good posture.

Sits on floor in various positions:

- cross leg sitting
- side-sitting
- long sitting
- sitting with flexed knees
- heel sitting
- straddling a roll.

Stands and walks with good posture.

2. Mobility

Develops the ability to roll.

Assumes a sitting position.

Creeps.

Assumes a kneeling position.

Crawls.

Attains a standing position.

Moves independently from place to place (by whatever means possible).

Assists in transfers.

Transfers independently.

Develops wheelchair mobility:

- turns brake on/off
- manoeuvers a wheelchair forward
- manoeuvers a wheelchair backwards
- turns corners in wheelchair
- manoeuvers wheelchair up and down ramps
- manoeuvers wheelchair over a variety of surfaces and in various situations.

Walks with support.

Walks independently.

Climbs stairs.

Runs.

Rides a tricycle.

Develops mobility in water:

- enters the water
- moves in the water
- exists from the water.

3. Strength and Endurance

Raises head from face-lying position (prone).

Turns head to side, in prone position.

Raises up on forearms with head lifted.

Raises up on extended arms with head lifted.

Lifts legs alternately from a prone position.

Raises head in midline from a supine position.

Raises buttocks off the floor with knees bent.

Does sit-ups.

Sits with head and trunk unsupported, in long sitting, cross-leg sitting and chair sitting.

Assumes a 4-point kneel position.

Maintains a 4-point kneel position with head up, arms straight and buttocks in line with knees.

Holds a half-kneel position.

Stands and walks on tip-toes.

Walks on rough surfaces.

Walks up and down stairs.

Develops upper body strength:

- pushes
- pulls
- pushes/pulls and holds
- picks up
- carries
- places
- moves an object to the side
- throws.

4. Balance and Coordination

Maintains balance while on a moving (rocking) surface:

- lying prone
- lying prone, with support, on forearms
- sitting cross-legged
- long-leg sitting
- sitting on a bolster
- straddling a bolster
- kneeling.

Regains balance when pushed, pulled or moved so that he is off balance:

- sitting cross-legged
- long-leg sitting
- sitting in a chair
- kneeling
- half kneel position (one knee and one foot in contact with the floor)
- standing
- standing on one foot
- standing in water.

Walks over a variety of surfaces, slopes and small obstacles.

Maintains still balance in the water while:

- standing
- kneeling
- sitting
- lying.

Crawls, using a reciprocal pattern.

Walks with normal timing and arm swing.

Demonstrates eye-hand coordination.

Demonstrates eye-foot coordination.

Demonstrates eye-hand-foot coordination.

MOTOR SKILLS

B. Fine Motor

Grasps objects when presented (grasp reflex).

Reaches out toward an object with hand open.

Demonstrates reach and crude grasp.

Reaches for, grasps and releases an object.

Brings hands to face to look at.

Uses thumb and all fingers to grasp.

Places hands together as he plays.

Holds object with two hands, e.g. cup.

Uses thumb, index and middle fingers to grasp.

Transfers objects from hand to hand.

Feels and explores objects with hands.

Feeds self finger foods, e.g. biscuit.

Bangs objects.

Demonstrates index finger, thumb in opposition, e.g. to pick-up raisin.

Stacks objects.

Places one object after another into large container.

Stacks objects.

Turns a door knob.

Screws and unscrews lids of jars.

Turns pages of a book.

Places small objects in small openings, e.g. button in hold, key in keyhole.

Draws with pencil in fingers.

Uses one hand to hold something, and the other to manipulate.

Uses a pencil/crayon with correct pencil grasp.

Uses simple hand tools.

Uses two hands, each performing separate functions.

SELF CARE

A. Toileting

Exhibits regularity in elimination.

Remains dry while sleeping.

Indicates need to go or need to change (verbally or non-verbally).

Identifies the bathroom with toileting.

Sits on toilet for up to five minutes.

Complies with toilet training schedule.

Demonstrates ability to control toileting needs.

Mounts and dismounts toilet.

Exhibits good toilet hygiene: wipe, flush, wash hands.

Adjusts clothing before and after toileting.

B. Dressing

Cooperates passively while being dressed.

Cooperates in dressing by extending arm and leg.

Removes simple clothing.

Undresses self, if laces untied and buttons undone.

Discriminates front and back of clothing.

Assists in dressing, e.g. pulls on simple garment.

With assistance, dresses and undresses self (outer apparel).

Gets specific clothing items.

Recognizes own clothing.

Hangs up clothes, e.g. on hook.

Takes off and puts on shoes (no tying).

Starts zipper and zips up.

Buttons up garments.

Buckles a belt, laces shoes, ties shoes.

Dresses self independently.

C. Eating

Swallows liquids.

Controls tongue.

Opens mouth spontaneously and accepts food.

Chews and swallows semi-solids.

Chews and swallows solids.

Sucks with a straw.

Eats with fingers.

Eats bit-sized pieces.

Sits at table in position conducive to eating.

Drinks from a cup or glass.

Eats with a spoon.

Associates appropriate room with meals.

Locates and sits at his own place at table and eats in his own space.

Eats with a fork.

Exhibits good table manners.

Pours from one container to another.

Spreads with a knife.

Helps prepare simple snacks.

Peels fruit with hands.

Selects favorite foods.

Eats a variety of foods.

Eats appropriate amounts, e.g. stops when full.

Cuts with a knife.

Participates in table talk during meals.

Distinguishes between edibles and in-edibles.

D. Grooming and Hygiene

Cooperates in having face and hands washed and dried.

Cooperates during bath time.

Washes face and hands.

Cooperates when getting teeth brushed.

Controls drooling.

Washes and dries face, ears and neck.

Brushes/combs hair.

With assistance, brushes teeth.

Distinguishes between clean and dirty.

Covers mouth when coughing or sneezing.

Blows and wipes nose.

With assistance, bathes and showers.

Cleans nails, e.g. with nail brush.

Exhibits correct posture.

With assistance, washes hair.

With assistance, uses deodorant.

With assistance, chooses clothing appropriate for occasion.

Demonstrates independence in bathing, washing, hair drying and styling hair.

Brushes teeth independently.

Demonstrates independence in care of menstrual needs.

Demonstrates independence in shaving.

E. Personal Health Care

Accepts medication.

Cooperates when given medication.

Drinks liquid medications from a cup independently.

Swallows tablet medication independently.

Indicates when he is sick or hurt.

Recognizes difference between medicine and food.

Unwraps or unbottles dose of tablet medication at appropriate times and takes it independently.

Pours and drinks single doses of liquid medication, and takes it independently at appropriate time.

With assistance, applies topical medications.

CONCEPT FORMATION

A. Sensory Awareness

1. Tactile

Responds to and accepts familiar textures and sensations.

Locates (looks at, touches) where he has been touched.

Demonstrates preference for specific objects or textiles.

2. Visual

Turns eyes toward light or other visual stimuli within close range and focuses on object momentarily.

Tracks objects or people in a horizontal field.

Tracks objects or people in the vertical plane.

Visually searches his surroundings to find objects or people.

Scans material on table.

Demonstrates awareness of an object's existence even when it is out of sight (object permanence).

Looks for fallen objects by bending over.

3. Auditory

Demonstrates awareness of sound by orienting to it.

Responds to voices.

4. Tastes/Smells

Accepts variety of tastes.

Accepts a variety of smells.

5. Movement

Demonstrates awareness of movement.

Attends to a large object moving through space.

Demonstrates awareness of force of movement.

B. Learning Readiness

Demonstrates preference for certain toys or people.

Uses asking behavior to meet needs.

Chooses between two given alternatives.

Maintains position in teaching situation for 10 minutes.

Attends to learning material before him.

Looks at teacher on command.

Locates and focuses on teacher in a group, on command.

Responds to task language.

Indicates "yes/no" in response to simple questions.

Imitates action.

Imitates unfamiliar actions on cue.

Attends to learning materials on the table.

Solicits praise.

Makes choice of activity and follows through.

Models a peer in a teaching situation.

Models a video representation.

Recognizes problem and seeks help.

Works out a solution to a problem.

C. Visual and Tactile Discrimination

Identifies familiar objects by sight/touch.

Identifies objects by size.

Identifies objects by shape.

Discriminates between wet/dry.

Discriminates between warm/cold.

Identifies objects by color.

Identifies whether objects are the same.

Identifies surfaces as rough/smooth.

Identifies textures and objects by touch only.

Distinguishes which of two weights is heavier.

Identifies pictures of objects.

Identifies differences in pictures.

Matches photo with drawing of an object.

Marches according to two variables at a time (size, shape, color).

Identifies whether objects are the same or different.

COMMUNICATION

A. Receptive Language

Responds to own name.

Stops in response to "No" at least 50% of the time.

Listens to rhymes and jingles.

Listens to music.

Responds with appropriate word or movement to simple commands.

Responds with appropriate gestures to questions, e.g. visual search, pointing to objects.

With assistance, associates sounds with objects.

Follows two related commands, e.g. "pick up (the) ball" and "give me (the) ball".

Identifies objects by function, e.g. things to wear vs. things to eat.

Listens to stories.

Associates sounds with objects.

Responds to stories being read.

Listens for details.

Identifies an object when no model is given.

Identifies an item from a choice of two.

B. Expressive Language

1. Pre-Language

Demonstrates awareness that he is separate from the environment.

Develops a primary relationship with the teacher (a connection to the outside world).

Develops knowledge that his movement can affect the behavior of another.

Develops a signal-to-movement relationship.

Takes part in co-active movement.

Develops awareness about objects in relation to his body movement (uses the body as a tool for exploring the world).

Develops body image.

Imitates (separation in both time and space).

Uses natural gestures (learns that body movements and facial expressions can be used to communicate).

Explores his environment.

Uses objects functionally.

Associates an object with its label.

2. Non-Verbal

Uses a personalized response mode.

Discriminates between two pictures.

Associates one or two pictures/symbols with their label (meaning).

Discriminates between the two symbols/pictures taught above.

Uses an increased number of symbols/pictures.

Uses two-word communications (symbols, pictures).

Uses three-word communications (symbols, pictures).

Signs one word.

Signs two words.

Discriminates between two signs.

Uses action symbols.

3. Verbal

Produces several different vocalizations, e.g. vowel sounds: ee, aa, gutterals.

Produces repetitive vocalizations, e.g. ga-ga-ga, with variation in pitch intensity and intonation.

Produces consonant sounds, e.g. pah, mah, bah.

Imitates sounds.

Discriminates between and produces speech sounds.

Begins to use verbal approximations of words other than mama/data meaningfully and spontaneously (at least two other words).

Uses seven or more word approximations, accompanied by gestures, consistently.

Labels objects or activities.

Identifies familiar sounds.

Makes needs known.

Indicates objections.

Uses two-word combinations.

Uses functional combinations of words.

Identifies object in simple pictures.

Demonstrates understanding of two to three prepositions.

SOCIALIZATION

A. Awareness of Others

Responds to personal physical contact.

Indicates recognition of parent, e.g. by kicking, waving arms, vocalizing, smiling.

Smiles or vocalizes when an adult talks.

Hugs or pats familiar persons.

Differentiates between familiar and unfamiliar persons by reaching for, following, etc.

Indicates awareness of peers by watching, smiling and vocalizing.

Initiates attention gaining behavior.

Greets familiar people.

Permits other student to play with his toy.

Displays behavior which indicates recognition of feelings of others.

Waits his turn.

Displays sympathetic response to other's distress, e.g. comforts student who has fallen.

Interacts appropriately with adults and peers.

B. Awareness of Self

Touches his own body.

Demonstrates sign of recognition when name is spoken, e.g. looks up, vocalizes.

Identifies major body parts.

Watches self in mirror.

Recognizes own image in photographs.

Recognizes function of major body parts.

Recognizes sex of self and others.

Demonstrates some degree of self assertion.

C. Play

Responds to toys.

Repeats enjoyed activities.

Clasps hands or plays with fingers when hands are brought to midline.

Combines toys in an elementary manner, e.g. banging together.

With assistance, plays with another person.

Plays simple structed games.

With assistance, engages in group play.

Plays sequence game.

Interacts with other students.

Seeks peer company during leisure time.

Engages in leisure activities.

PURPOSEFUL ACTIVITIES

A. Orientation

With assistance, moves to various rooms in the house or school.

Moves from place to place within one room.

Moves from place to place on one level.

Finds his own room in home and school.

Demonstrates awareness of new situations, e.g. stairs, strange dogs, engine noises.

Approaches new situations with caution.

Negotiates various surfaces.

Plays in an enclosed yard.

With supervision, plays in open area.

Associates room with specific activities.

Identifies different materials as belonging in different rooms.

Opens and closes doors.

Identifies his house.

Follows accepted practices in the school, e.g. lining up.

Follows evacuation procedures as outlined by home or school, e.g. fire drill.

Locates washroom, gym, office and homeroom.

Recognizes basic community signs and symbols.

Responds to weather conditions, e.g. comes in out of cold or rain.

Operates familiar locks: safety bolt, lock and key.

Demonstrates awareness of what to do when lost.

B. Daily Routines

Anticipates daily routines.

Participates in simple tasks.

Follows basic daily routines.

Takes part in group activities.

Helps put materials away.

With supervision, demonstrates knowledge of daily routines and moves from activity to activity.

Initiates lunch or recess behavior on an external cue.

Operates common equipment such as telephones, tape recorders, radio, record players, etc.

C. Work Skills

Uses common tools.

Performs simple routines, e.g. stuffs and stamps envelopes.

Visits and works in a variety of "word" settings within the school or home.

Recognizes work orientation.

Returns to a task after a break.

Attends to task through minor distractions.

Sustains attention to task throughout a 10-15 minute period.

Responds to requests to work faster.

Distinguishes finished from unfinished work.

Works as part of an assembly line.

Performs clerical routines:

- collates
- staples and stacks paper
- wraps and tapes packages
- labels packages.

Performs workshop tasks:

- fills boxes and bins using two hands
- groups objects together
- assembles articles
- builds small woodwork articles
- lifts and carries boxes
- stacks boxes
- uses dollies and trolleys.

D. Home Skills

Puts toys in proper place.

Tidies up own area, e.g. bedroom, desk.

Participates in housekeeping activities, e.g. vacuuming, dusting, taking out garbage.

Participates in table setting/ clearing activities.

With assistance, washes/dries dishes, operates dishwasher.

With assistance, uses some appliances, e.g. toaster, kettle.

With assistance, prepares drinks, e.g. coffee, juice.

With assistance, prepares simple foods, e.g. soup, snack, sandwich.

Participates in cooking/baking activities.

Participates in food storing/ preserving activities.

Participates in laundry activities, e.g. sorting, putting in dryer.

Participates in yard-care activities, e.g. raking, mowing.

Interacts with pets:

- pets an animal
- walks a dog
- assists in feeding pets
- assists in cleaning and caring for pets.

Distinguishes between family pet and other animals.

Participates in providing basic plant care:

- waters plants
- mists plants
- assists in repotting
- positions plants.

E. Community Skills

1. Neighborhood Skills

Plays in front yard.

Greets neighbors and familiar passers-by.

Visits/runs errands in immediate neighborhood.

Participates in neighborhood games.

2. Travel Safety/Transportation

Complies with travel safety procedures, e.g. for strollers and car seats.

Travels with an adult in the community.

Moves along sidewalk.

Walks over raised thresholds and up or down steps.

Steps up and down curbs.

Stays with a group or partner.

Identifies familiar landmarks.

Identifies and avoids two or three danger areas.

With supervision, crosses street.

Demonstrates awareness of dangers of traffic.

Follows basic safety rules.

With supervision, uses public transportation.

3. Visiting Friends

Visits with adult/classroom volunteer.

Visits with same age non-handicapped friend.

Visits with classroom friend.

4. Stores and Restaurants

Identifies coins and bills as money.

Makes simple purchase in neighborhood store, e.g. milk, paper.

Demonstrates acceptable eating behavior.

Visits fast food outlets (where food is available on demand).

Visits local restaurants for a quick meal (chips, milk, doughnut, etc.).

Orders food in cafeteria line.

Identifies meeting place, e.g. in shopping area.

Negotiates various doors, e.g. automatic, push bar doors.

Identifies store function by window display.

Demonstrates appropriate in-store behavior, e.g. looks at articles but does not touch.

Participates in purchasing of articles.

Participates in choosing article.

Assists in grocery shopping.

5. Activities and Facilities

Stands in line and waits his turn to buy ticket, e.g. for movie.

Locates seat or wheelchair area.

Assists in taking clothes to laundromat or dry cleaners.

Visits doctor/dentist.

Visits other services used by family, e.g. car wash.

RECREATION

A. Water Activities

Adjusts to pool atmosphers.

Enters the water.

Adjusts to in-water environment, e.g. play activities, bouncing around in water.

Develops head control.

Blows in the water.

Develops knowledge about water buoyancy.

Moves independently in the water.

Recovers to a safe breathing position from forward rotation.

Exists from the water.

Performs forward recovery without assistance.

Submerges readily when requested.

Blows out with face submerged in water.

Performs rolling recovery back to front to back.

Opens eyes under water.

Enters water without assistance and gains balance.

Exhales and inhales without getting water up the nose.

Performs "jelly fish" float.

Exists from water unaided.

Practises drown-proofing techniques.

Pushes off and glides in the water.

Sculls (as adapted to his needs).

B. Physical Activities and Sports

Performs the following arm movements:

- grasping objects
- dropping objects

- rolling objects
- trapping objects
- catching objects
- throwing objects
- swinging a bat, hockey stick, etc.

Demonstrates acquisition of skills related to:

- rolling
- running
- kicking
- bouncing, e.g. on trampoline
- jumping (off)
- jumping (up and down)
- using a slide
- climbing
- performing a combination of movements.

Participates in individual physical activities and sports:

- tricycling
- using a wagon
- fishing
- kite flying
- horseback riding.

Participates in dual physical activities and sports:

- playing catch
- bowling
- croquet
- golf/miniature golf
- horseshoe/ring toss
- air hockey
- ping pong
- basketball
- volleyball
- T-ball.

Participates in winter activities:

- ice skating
- curling
- snowshoeing
- cross-country skiing
- sledding/tobogganning.

Demonstrates awareness of rules and fundamentals of sports in group activities, e.g. taking turns, care of equipment, co-operation.

C. Creative Activities

1. Music

Listens to music: radio, record player, etc.

Responds to music.

Manipulates rhythm instruments to make sounds.

Claps hands to rhythm sounds.

Moves feet in time to music.

Stops moving when the music stops.

Uses rhythm sticks, one per hand, alternating and in tempo with the music.

Vocalizes with music when sung to.

Imitates high and low sounds.

Associates melody sounds with activities.

Repeats body movements to song games.

Sings or requests favorite movement songs.

Participates in rhythmic activities.

Reacts appropriately to music: hand clapping, singing, dancing.

Operates entertainment equipment, e.g. radio, record player, television.

2. Crafts

Paints with his fingers, hands or feet.

Crumples and tears paper.

Uses felt markers, crayons, chalks and pastels.

Cuts, glues and tapes.

Manipulates clay.

Makes block prints.

Participates in creative crafts.

3. Movement

Explores environment through movement.

Explores environment through movement in different media.

Demonstrates rhythmic movements through exploration in space.

Imitates movements.

Engages in spontaneous movement.

Cooperates with a partner in rhythmic movements.

Participates in simple dances.

D. Outdoor Activities

Participates in a variety of outdoor activities:

- nature walks
- city and provincial parks
- farm trip
- picnics and camping
- zoos
- hayrides
- paddleboat and boating
- pet care
- gardening.

E. Leisure Activities

Participates in solitary leisure activities:

- playing with puppets and stuffed animals
- playing with a balloon
- blowing bubbles
- playing with hand held games
- playing with "moving" toys
- looking at books and magazines.

Participates in table activities and games.

Participates in matching games.

Makes a scrapbook.

Starts a collection.

Pursues a hobby.

Operates home entertainment equipment.

Participates in leisure activities with one or more person(s).

APPENDIX B

GLOSSARY

1. Psycho-Educational Terms
2. Physical and Medical Terms

1. PSYCHO-EDUCATIONAL TERMS

Adaptive Behavior- how well the individual solves problems in his environment and how well be adapts to the behavioral expectations and standards of society, e.g.: when the student was unable to read the price of a bag of chips, he got the store clerk's attention, pointed and said, "How much?"

Auditory Memory - the ability to retain and reproduce sounds that are heard.

Auditory-Vocal Association - the ability to relate spoken words in a meaningful way.

Backward or Reverse Chaining - a method of teaching that involves breaking a complex pattern of behavior into a sequence of smaller behaviors, which are then taught in a reverse order beginning with the final step, e.g. behavior - putting on long pants. Begin by putting student's pants over his feet and pulling up to thighs. Have student pull pants up to waist. Continue this step, reinforcing first attempts and then the successful behavior. Next pull student's pants up only to his knees; then ankles; then his feet just into his pants; then one foot in only; until student does it independently.

Base Rate (baseline) - a measure of the amount or rate of a behavior as it occurs naturally and prior to remediation or intervention.

Behavioral or Instructional Objective - a specific instructional goal defined in terms of observable behavior and measuring action that includes:
a) who performs the behavior
b) conditions under which the behavior is performed
c) the directly performed behavior, specifically defined
d) the criterion for determining the action performed.

Body Image (Body Concept) - the individual's subjective opinion about his physical identity. The individual's emotional perceptions about the worth of his body and its functions, e.g. a boy of average height and weight whose older brothers have been rugged athletes may see himself as small and inferior.

Contingency - an "if, then" relationship between a behavior and its consequence, e.g. "If your room is cleaned up first, then you may go out to play".

Criterion - level of acceptable performance of a behavior involving rate, time, distance, frequency, duration, etc.

Critical Steps - in some tasks, errors more likely occur in the middle steps of a sequence. In such a case, these critical steps may be emphasized and then reintroduced into the sequence.

Cueing - providing those environmental events (signals, requests, or conditions) that give the student information about what he is to do to receive reinforcement. Types of cueing: visual modelling, auditory cueing, physical guidance, precise environmental arrangements; e.g. cue (verbal prompt "Look", placing hand under student's chin to establish eye contact) - behavior (increased eye contact) - consequence (verbal praise and/or primary reinforcement).

Differential Reinforcement of Other Behaviors (DRO) - operant technique in which the undesired behaviors are ignored and any other behaviors which are appropriate and which will compete with the undesired behaviors are positively reinforced, e.g. for the hyperactive and distractible student, reinforcement would be provided for persisting at a task, for attending to teacher's verbal instruction and for remaining in his chair during classroom work. There would be no attention given to the hyperactive behaviors.

Discrimination (1) - an occurrence of a behavior in the presence of one stimulus but not in the presence of another stimulus, e.g. student eats food off plate but not floor.

Discrimination (2) - judgement about likeness or differences between objects, forms, color, sounds, etc. presented simultaneously or sequentially.

Early Learning - First Time Learning - those activities a child learns for the first time. This learning is by trial and error, and tends to take a long time, involving many repetitions. As more skills are learned, early learning decreases as transfer occurs more frequently, e.g. a student who is learning to eat at school has not benefited from early learning of biting and chewing skills. It takes many trials to learn these skills and transfer them because his food at home is always mashed.

Expressive Language - ability to put ideas into words. This language is ordinarily spoken or written, but may include gestures and motoric communication.

Extinction - a gradual decline in the measured rate of a behavior which results when the response is no longer reinforced, e.g. a student no longer screams in class when the teacher pays no attention to it.

Fading (cue fading) - gradual withdrawal of cues or reinforcement in the learning of responses, e.g. for tying shoes, abnormally large laces of different colors are used to first teach the skill. Then the size and the colors are gradually faded out so that a normal shoelace is all that is required.

Forward Chaining - the task sequence is taught by practicing the first step until it is mastered and then linking it to the second step, and so on, until the whole task is acquired, e.g. pulling up trousers. Student learns to put one foot into pant leg, then two feet, then he pulls pants up to knees, then he pulls pants up to waist, until finally he completes the entire procedure.

Functional Grouping - because some tasks do not require completion as a set sequence, other cues can be used to trigger or control the performance of skills. Steps can also be grouped by teaching similar motor movements of discriminations separately, to maximize transfer, then introducing the skills into the natural or chosen sequence, e.g. self-help skills can be grouped by which room, as a cue (bathroom, bedroom).

Generalization - a behavior that is performed under one set of stimulus conditions and is also performed under different conditions, e.g. a student who uses the same eating skills both at school and at home has acquired a generalized behavior.

Gustation (Gustatory Perception) - pertaining to the sense of taste, such as sweet, sour, salty, acidic, and bitter.

Hands On or Hand Over Hand - procedure of physically guiding a student through the steps of a behavior that he cannot do independently. If a student does not imitate or respond to other prompts, hands are placed on his to initiate action, e.g. a non-compliant student refuses to take off his outer clothing so this action was initiated by using hand over hand. Initially he objected but now can do the steps with verbal prompts only.

Incidental Learning - the acquiring of certain skills or understandings which are learned as a by-product of some other activity, e.g. while playing with puzzles, the student learned which basic shapes fit the corresponding holes.

Modelling - demonstrating a behavior to the student by actually doing the task for him to see (visual modelling) or speaking the correct response (auditory modelling) so that he will learn by imitation, e.g. a student can learn the appropriate use of a toy by watching a more mature student play with it.

Manual Expression - the ability to express one's ideas in gesture, e.g. twirling one's index finger in the air as if dialing a telephone.

Movement Patterns (Movement Cycles) - the use of movement or a series of movement for a purpose. These behaviors must be observable, repeatable and countable, e.g. the student brings spoon from the bowl on the table to his mouth.

Negative Reinforcement - the strengthening of behavior through the removal of unpleasant or aversive consequences, e.g. a child learns to put on his mittens when it is cold outside, because his hands are no longer cold.

Object Permanence - a developmental cognitive concept which implies the knowledge that an object does not disappear when it is hidden from view, e.g. when the toy was put in the cupboard, the child looked for it there.

Olfactory Perception (Olfaction) - pertaining to the sense of smell.

Operant Conditioning - form of learning in which (1) correct responses are reinforced thereby making them more likely to occur, (2) incorrect responses are punished or ignored (not reinforced) making them less likely to occur again.

Overcorrection - a punishment procedure which can be used for eliminating inappropriate behavior by requiring the student to perform corrective behaviors, e.g. a bed-wetter is required to put his wet bed sheets in the washer and put on fresh sheets as soon as it is discovered he has wet the bed.

Overlearning - a strategy that presents the learning task several times past the criterion level where the student performs successfully so that the skill is fully acquired, e.g. a variety of objects of various sizes are continuously presented after the student has acquired the concepts of "big" and "little", so that it is ensured the student will retain the concepts.

Pairing - a procedure used in changing from tangible to non-tangible reinforcers. It is the simultaneous presentation of a strong tangible or primary reinforcer with a weaker, non-tangible or secondary reinforcer, e.g. verbal praise is given along with candy for increasing eye contact until only praise is necessary to motivate this behavior.

Perception - the interpretation of sensation based on previous experience, through interaction with environment. Perception, then, is a learned function and as a learned function, it is susceptible to teaching.

Positioning - this involves placing or positioning the student in a reflex inhibiting position or a passive activity position. A reflex inhibiting position might involve placing a student in such a way as to counteract a reflex which is uncontrolled. A passive activity position, such as lying in a prone position, can serve to strengthen spastic muscles.

Perseveration - the inability to shift attention or to change behavior that is no longer appropriate; the student responds automatically with a previously successful response, despite its irrelevance to the present situation, e.g. a student continues to sing in pre-numbers class, after music class is over.

Positive Reinforcement - the strengthening of behavior through the presentation of positive consequences (primary reinforcers, praise, attention, pleasant activities, money, privileges, tokens, etc.), e.g. when the student completed his work he was given a star on his chart and praised by his teacher. He continued to complete his school work promptly.

Precision (Prescriptive) Teaching - program prescribed to meet a student's needs based on diagnosis and prognosis of student's functioning. Evaluation of behaviors, pinpointing, recording and consequating behavior are built into the teaching plan.

Premack Principle - this principle states that behavior that occurs at a high frequency can be used to reinforce behavior which occurs at a low frequency, e.g. when the student has sat quietly at this desk for half an hour he is allowed into the playroom for fifteen minutes.

Punishment - the presentation of an aversive consequence or penalty which decreases the frequency of occurrence of the behavior it follows, e.g. because the student was disorderly during language class, he was punished by having to do schoolwork through recess.

Prompting (Priming) - a very specific cue used to increase the frequency of occurrence of a learned response. The prompt may be of a visual, verbal or physical nature that indicates to the student what he is expected to do, e.g. the teacher stands in front of student, puts hands under the student's armpits and says, "Stand up". The student stands.

Primary Reinforcers - direct, tangible, positive consequences that satisfy certain biological needs of the child such as eating and drinking, e.g. food, drink, physical stimulation, warmth.

Prerequisite Skills - there are sequences of skills going from easy to difficult in each area of development. Prerequisite skills are those skills which are needed before the student can master a particular behavior, e.g. before a student's speech articulation can be expected to improve, the prerequisite skills of mouth and tongue control need to be developed using various oral exercises and a mirror.

Receptive Language - the ability to understand language messages from others. This usually relates to spoken or written words, but may include understanding gesture or sign communication, e.g. when the student heard the words "Get dressed, now", he immediately went to the closet and put on his coat and boots indicating that he understood what was said.

Reinforcement Schedule - the response contingencies that determine when and how often reinforcement will be delivered. There are two general types: (a) continuous reinforcement and (b) intermittent reinforcement; and four more specific schedules (1) fixed ratio, (2) variable ratio, (3) fixed interval, and (4) variable interval, e.g. initially the student was given a candy and a hug every time he performed the task (fixed ratio of 1). As he performed it more independently, he was reinforced every third time. Eventually reinforcement was more intermittent and he was reinforced every five, seven, three times, etc. (variable ratio reinforcement).

Rhythm - a method of naturally combining a number of small steps so that they may be performed as one motion. This larger motion may then be taught separately from the whole task with the emphasis being on developing rhythm for completing the task. Rhythm is useful in leisure skills because it is intrinsically reinforcing, e.g. the student practised moving his arms in a stroking motion with simultaneous kicks while the instructor held him up in the water. Once the rhythm was mastered the student could swim on his own.

Secondary Reinforcers - reinforcers that have acquired their value and are not related to biological needs. Includes social reinforcers (praise, smile), toys, tokens, activities, etc., e.g. eventually the student would comply in the one-to-one teaching situation, not to receive candies, but to win the praise from his teacher.

Shaping - reinforcing successive approximations of the desired behavior with the aim of eventually requiring a precise correct response, e.g. at juice time, any vocalization other than whining was reinforced. Then the student was reinforced only if his vocalization had an "oo" sound. Once that sound was emitted consistently, then "joo" and finally "juice" was reinforced.

Subsequent Event (Consequence) - an event occurring temporarily after a behavior has been emitted.

Tactile Perception - pertaining to the sense of touch; such as, hard and soft, rough and smooth, size and shape, cold and hot, wet and dry.

Task Analysis - a procedure of analyzing a task or behavior and breaking it down into a series of smaller, sequential components and using these steps to teach the task, e.g. putting on socks: (1) position sock correctly with heel-side down; (2) hold sock open at top; (3) insert toes into sock; (4) pull sock over heel; (5) pull sock up.

Time Out from Positive Reinforcement - a procedure where a student is temporarily removed from a positive reinforcing situation following inappropriate behavior. He is placed in a situation where any stimulation or reinforcement is minimal, or else others are removed from situation, e.g. the student throws a temper tantrum in the classroom. He is quickly ushered to an isolated partition at the back of the room where he no longer receives attention from the teacher and other students for five minutes.

Token Systems (Token Economy) - a reinforcement system using tokens which are any tangible or usable item that is redeemable for certain primary reinforcers, activity times, privileges, etc., e.g. the student was given a checker each time he completed a page of school work, which he cashed in at the end of the day for the privilege of taking puzzles home.

Transfer - using previously learned skills and applying them to new situations, so that learning occurs more easily, e.g. the student already knows how to mix and pour, therefore, is able to learn how to make batter for a cake quite easily.

Understanding - the ability to comprehend auditory and visual symbols.

Visual Decoding - the process of comprehending significance of pictures and written words.

Visual Memory - the ability to retain and reproduce visual material seen briefly.

Visual Motor Association - the ability to relate meaningful visual symbols to each other by pointing (with fingers or some other gesture).

Visual Perception - includes eye-movement, focus, visual memory, visual comparison, visual projection, eye-hand coordination. The emphasis is on the functional rather than the medical aspects of vision.

2. PHYSICAL AND MEDICAL TERMS

Aphasia - the inability to use and/or understand spoken language as a result of defect or damage in the central nervous system. There are two main types of aphasia: receptive aphasia and expressive aphasia.

Associated Reactions - increase of stiffness in spastic arms and legs resulting from effort.

Asymmetrical - one side of the body is different from the other - unequal.

Asymmetrical Tonic Neck Reflex - when the turning of the head causes one arm to straighten and stiffen and the other to bend and stiffen.

Ataxia - the lack of normal muscular coordination; irregularity of muscular action. Movements are poorly-timed, graded and directed.

Athetoid (Athetosis) - a type of cerebral palsy in which slow, involuntary movements are present in one or more parts of the body due to neurological impairment.

Atrophy - a reduction in muscle bulk. A wasting away of muscles or nerve cells.

Aura - refers to the warnings or subjective sensations preceding an epileptic seizure, e.g. perculiar taste, spots before eyes.

Autism - originally classified as a form of early childhood psychoses characterized by severe withdrawal and inappropriate response to external stimuli. Not thought to be associated with brain damage other than primary non-organic emotional disturbance.

Automatic Movements - necessary movements done without thought or effort.

Autonomic Seizure - spasmodic episodes involving the involuntary functions of the body, e.g. flushing perspiration, rapid heart beat or pallor.

Balance - maintaining equilibrium.

b.i.d. - twice a day; usually refers to a method of administering medications.

Cerebral Palsy - a group of nonprogressive disorders resulting from malfunction of the motor centres and pathways of the brain, characterized by paralysis, weakness, incoordination, or other abnormalities of motor function which have the origin prenatally, during birth or before the central nervous system has reached relative maturity.

Choreiform Movement - involuntary jerking movements of the extremities and facial muscles. They are extremely variable and rhythmic and may occur when patient is asleep as well as when awake.

Congenital - present at birth.

Contracture - a shortening of the muscle tendon that results in a limited range of motion in a joint.

Convulsive Disorder - a condition in which a person has convulsions; involuntary series of muscular contractions due to a brain disorder.

Co-ordination - the patterning of the action of the muscles of the body so that they work together in harmony.

Deformities - body or limbs fixed in abnormal positions.

Diplegia - paralysis or motor dysfunction of all four limbs of the body, with the legs being more affected than the arms.

Down's Syndrom (Mongolism) - a genetically transmitted chromosomal disorder with many clinical findings such as slanting eye; a large protruding tongue; a broad short skill; thick, short hands, feet and trunk; short, curved fifth fingers, wide separation of big and second toes, single crease across the palm of hands, abnormal heart, hypotonia, mental retardation, and usually an extra chromosome.

Epilepsy - recurrent sudden changes in consiousness, behavior, sensation, or muscle activity that are beyond voluntary control due to episodes of abnormal brain activity. Kinds of epilepsy: grand mal, petit mal, psychomotor, focal, Jacksonian, antonomic.

Extension - the straightening of trunk and limbs. Total extension is the straightening of all joints of the body.

Facilitation - making it possible to move.

Flexion - bending of any part of the body. Decreasing the angle of a joint.

Grand-mal Seizure - a major convulsion with loss of consciousness, stiffening of the back muscles, tightening and jerking of muscles in the arms and legs, and sometimes frothing at the mouth, wetting or soiling. Usually lasts only a few minutes or seconds and is followed by a period of confusion, exhaustion, and drowsiness.

Handling - holding and moving with or without the help of the child.

Head Control - ability to control the position of the head.

Hemiplegia - refers to a motor impairment in which one lateral half of the body is paralyzed. It is this type that shows asymmetry most clearly. This is a common presentation of Cerebral Palsy.

h.s. - at hour of sleep; usually refers to a method of administering medication.

Hydrocephalus - an excess of cerebrospinal fluid within the skull. It may cause enlargement of the skull or simple intracranial pressure. It does not always cause mental retardation.

Hyperactivity (Hyperkinesis) - an excess or overflow of motor and/or verbal activity; may be caused either by neurological impairment or anxiety.

Hypertonia - increased muscle tone. The muscles are "tight".

Hypotonia ('Floppiness') - diminished muscle tone. Abnormally low tension and flabbiness.

Inhibition - a technical term used in treatment. The prevention or diminution of a reflex muscle contraction. Special techniques of handling are aimed at stopping the spastic or athetoid patterns which prevent or interfere with normal activity.

Key Points - parts of the body mostly proximal from which one can reduce spasticity and simultanecusly facilitate more normal postural and movement reactions.

Muscle Tone - the state of tension in muscles at rest and when moved - regulated under normal circumstances sub-consciously in such a way that the tension is sufficiently high to withstand the pull of gravity, but is never strong to interfere with movements.

Occupational Therapy - treatment frequently prescribed by a physician and under direct supervision of an occupational therapist to improve adaptive abilities such as dressing, feeding, use of upper extremities and development of vocational activity skills.

Paraplegia - paralysis of the lower extremities.

Passive - that which is done to the child without his help or cooperation.

Patterns of Movement - in every movement or change of posture produced by it, the brain throws muscles into action in well coordinated groups or patterns.

Petit-mal Seizure - a repetitious brief blackout or loss of consciousness and/or minor rhythmic movements or parts of the body, e.g. brief stare, blinking of eyes, momentary lack of motion and loss of consiousness.

Physical Transfer - the efficient lifting of physically handicapped students from one location to another.

Physiotherapy - treatment prescribed by a physician for physical conditions using neuromuscular activity, exercise and other means to enable the patient to achieve better strength and control of motor functions.

Primitive Movements - baby movements.

Profound Retardation - a degree of mental retardation; usually with an I.Q. of less than 10. These students need constant care and supervision and are often physically handicapped.

Pronation - turning of the arm with palm of hand down.

Prone - lying on the stomach.

Psychomotor - motor behavior with psychological component, e.g. muscle tension states of psychological origin, fine motor performance which is affected by psychological factors.

q.i.d. - four times a day; usually refers to a method of administering medications.

Quadriplegia - motor dysfunction in all four extremities.

Reflexes - postures and movements completely beyond voluntary control.

Righting - ability to move head and/or body upright when normal balance is threatened.

Rigidity - very stiff posture and body movements.

Rotation - movement that usually takes place between hip or shoulder. Movement of a part around a longitudinal axis.

Sensori-Motor Experience - the bodily sensation produced from one's own movements which are perceived and integrated to other sensations, e.g. visual, and which provide feedback for following movement.

Severe Retardation - these students show severe deficits in adaptive behavior and many self-help skills, but profit from systematic training.

Spasm - sudden tightening of muscles.

Spasticity - increased muscle tone which results in stiffness or restricted motion.

Speech Therapy - treatment given to develop and to improve speech (and to help with feeding problems).

Stereognosis - the ability to recognize shape, size and/or weight of objects.

Stimulation - provide the desire to move, speak, etc.

Supination - turning of the arm with palm of hand up.

Supine - lying on back.

Symmetrical - both sides equal.

Symmetrical Tonic Neck Reflex - forward bending of head which produces extension of legs and flexim of arms; backward bending of head produces extension of arms and flex of legs.

t.i.d. - three times a day; usually refers to a method of administering medications.

Tonic Neck Reflex - when the turning of the head causes one arm to straighten and stiffen and the other to bend and stiffen.

Voluntary Movements - movements done with intention and/or concentration.

APPENDIX C

RESOURCES

1. Basic Book List
2. Reference Books by Title
3. Assessment Guides

1. BASIC BOOK LIST FOR SCHOOL PROGRAMS FOR DEPENDENT HANDICAPPED

American Association for the Education of Severely/Profoundly Handicapped, *AAESPH Newsletter* (monthly) and *AAESPH Review* (quarterly), Seattle, Washington: AAESPH, (see especially 1979 issues).

Finnie, N.R. *Handling the Young Cerebral Palsied Child at Home*. New York: E.P. Dutton, 1975.

Foxx, R. & Azrin, N. *Toilet Training the Retarded*. Champaign, Ill.: Research Press, 1973.

Fredericks, H.D.B., Baldwin, V.L., Grove, D.N., Riggs, C., Furey, V., Moore, W., Jordan, E., Gage, M., Leval, L., Alrick, G., & Wadlow, M. *A Data Based Classroom for the Moderately and Severely Handicapped*. Monmouth, Oregon: Instructional Development Corporation, 1975.

Guess, D., Sailor, N., Baer, D. *Functional Speech & Language Training for Severely Handicapped*, H & H Enterprises Inc., 1976.

Halouet, J., Guess, D., & Kelly, P. *Statewide Inservice Training Project for Teachers of the Severely Multiply Handicapped*. University of Kansas Medical Center, 1979.

Haring, N.G. (Ed.) *The Experimental Education Training Program: An Inservice Program for Personnel Serving the Severely Handicapped, Volume 1, Systematic Instruction*. Seattle, Washington: University of Washington, College of Education, 1977.

Haring, N.G. & Brown, L.J. (Eds.) *Teaching the Severely Handicapped, Vol. 1*. New York: Grune & Stratton, 1976.

Jerard, S. et al *A Comprehensive Program for Multi-Handicapped Children*. Alvin Buckwald Center, 1980.

Perske, R., Clifton, A., McLean, B.M., and Ishler, Stein, J. (Eds.) *Mealtimes for Severely and Profoundly Handicapped Persons*. Baltimore: University Park Press, 1977.

Perske, R. & Smith, J. (Eds.) *Beyond the Ordinary (The Preparation of Professionals to Educate Severely and Profoundly Handicapped Persons/ Toward the Development of Standards and Criteria)*. Parsons, Kansas: Words and Pictures Corporation, 1978.

Snell, M.E. (Ed.) *Systematic Instruction of the Moderately and Severely Handicapped*. Columbus, Ohio: Charles E. Merril Publishing Company, 1978.

Sontag, E. et al *Educational Programming for the Severely and Profoundly Handicapped*. Reston, Virginia: Council for Exceptional Children, 1976.

Thomas, M.A. Hey Don't Forget About Me. Reston, Virginia: Council for Exceptional Children, 1976.

Wilson, S. Pauls, et al. Manual Language Dictionary - Functional Language for the Retarded. Hartford, Connecticut: 1974.

York, R.L. & Eugene, E. (Eds.) Teaching the Severely Handicapped Vol. IV. Seattle: American Association for the Education of Severely/ Profoundly Handicapped, 1979.

2. REFERENCE BOOKS BY TITLE

AAESPH Review. (American Association for the Education of the Severely and Profoundly Handicapped.) Seattle, Washington. Published quarterly. See especially Spring, Summer, Fall and Winter, 1979, Vol. 4, No. 1, 2, 3, 4.

These publications apply up to date research information to the teaching of severely/profoundly handicapped students. The articles are of a more technical nature and therefore require some academic research knowledge. They are, however, among the more innovative applied research journals in the field of developmental handicap available today.

Adapted Aquatics. (The American National Red Cross, 1977.)

This textbook on adapted aquatics and companion instructor's manual, Methods in Adapted Aquatics are a continuation of the effort to enhance the technical information available to instructors in swimming programs for the handicapped. It is the textbook for Red Cross instructor courses in Adapted Aquatics and is designed to be a resource for all persons working with the handicapped in swimming programs.

Adapted Physical Education and Recreation. (Sherril, Claudine) Wm. C. Brown, (Publishers), Iowa 1976.

There is a chapter in this book devoted to recreation for the mentally retarded. This section provides a good adaptive-behavior classification table and clinical definitions. The special needs in physical education for the severely profoundly retarded are discussed in some detail, inclusive of performance charts.

Aides for the Severely Handicapped. (Copeland, Keith (Ed.) New York: Grune and Stratton, 1974.

Provides detailed description of background, how it developed, how it functions, what it is capable of, electronic and remote control devices which have been developed to aid severely handicapped in acquiring degree of independence, e.g. - switching device which controls by mouth and breath control radio, page-turner, heater telephone, etc. - light operated devices which can control typewriter - morse code for voice disabled (palate key control) etc.

Beyond the Ordinary. (Perske, R. & Smith, J.(Eds.) Pasons, Kansas: Words & Pictures Corporation, 1977.

This is a well-organized booklet that outlines a range of competences and responsibilities required of professionals to educate severely and profoundly handicapped persons. It explores the requisite skills for being an effective educator: behavioral technology and systematic instruction; basic life skills; interdisciplinary and transdisciplinary teamwork; parent - professional relationships; community coordination, early intervention; and prevocational and vocational education. It also identifies the responsibilities for providing public education and professional training with references to many prominent authors.

Cerebral Palsy: Its Individual and Community Problems. (Cruickshank, W. M. Ed.) (New York: Syracuse University Press, 1966)

The book is a broad survey of the problems related to cerebral palsy. It discusses such areas as speech and language problems, hearing and visual disorders, physical and occupational therapy, educational planning, etc. Each discussion is relatively brief; therefore, the editor's opinion and lists of related readings have been added to the chapters as a guide for those who wish to further pursue a topic.

A Comprehensive Handbook for Management of Children with Developmental Disabilities. (White, C.S., Minor, J.W., & Connolly, B. (Eds.) University of Tennessee Center for the Health Services, Child Development Center, 1977.

This book relates the basic principles of teaching the developmentally handicapped child so that they are understandable to parents, students, direct care staff, and teachers. It discusses abnormal conditions such as the spastic and hypotonic child from occupational and physical therapy points-of-view. Behavior modification principles are applied to special behavior problems such as hyperactivity, autism and seizures. Developmental and behavioral aspects of self help skills of feeding, toileting, and dressing are presented in very precise terms.

A Comprehensive Program for Multi-Handicapped Children. (Jerard, Suzanne, et al.) (Alvin Buchwald Center, 1980)

An illustrated approach to helping the multi-handicapped child to become a "total child". Sections deal with gross motor skills, fine motor skills, tactile, olfactory and gustatory skills, self-help skills, body awareness and multi-handicapped child's need for understanding.

The Data Based Classroom for the Moderately and Severely Handicapped. (Fredericks, H.D. et al.) Monmouth, Oregon: Instructional Development Corporation, 1975.

An excellent guide to setting up a classroom program for severely handicapped learners. Includes assessments, class organization, record keeping and evaluation.

Early Cognitive Instruction for the Moderately and Severely Handicapped. (McCormack, Jones, Chalmers, Amanda) Champaign, Ill.: Research Press, 1989.

This book is designed to assist teachers in developing systematic instruction methods to meet the needs of moderately/severely handicapped learners. It provides specific suggestions and procedures for implementing programs.

Early Self Help Skills. (Baker, Bruce, et al.) Champaign, Ill.: Research Press, 1976.

This book is designed for parents, with professionals in mind also. It provides introductory methods to the principles of teaching and training and a section on programs and activities in: self help readiness skills, basic motor skills, motor activities, eating, dressing and grooming. This book is one of a series in the Program Steps to Independence and is a good introductory manual.

Educating the Severely and Profoundly Retarded. (Anderson, Robert M. and Greer, John G.) Baltimore: University Park Press, 1976.

This is a collection of approximately fifty articles and studies falling into ten broad categories: broad aspects of treatment, general instructional procedures, sensorimotor stimulation, self care skills, language development, parent training program, the paraprofessional in school programs, vocational rehabilitation programs and community programs. This is written for the undergraduate or graduate student and for professionals. This book emphasizes mainstreaming the severely and profoundly retarded child.

Education and Care of Moderately and Severely Retarded Children. (Alpern, Gerald D. and Boll, Thomas J. (Eds.) Seattle, Washington: Special Child Publications, Inc., 1971.

This publication was prepared by the Educational Staff of Marion County (Indiana) Association for Retarded Children to provide specific guidelines, pointers, curricular ideas, and procedures for teaching children with serious intellectual deficits. Content includes classroom instruction in physical and motor development such as body awareness and play. Other major chapters deal with communication and language development, behavior modifications and precision teaching, discipline, and personal appearance and hygiene. An extensive curriculum guide includes many practical and functional activities discussed in terms of age level for tasks and aim, purpose and description of each activity.

An Education Curriculum for the Moderately, Severely and Profoundly Mentally Handicapped Pupil. (Adams, Jane L.) Springfield, Ill.: Charles C. Thomas, 1975.

This book consists of teaching objectives and teaching procedures for the moderately, severely and profoundly handicapped pupil. Curriculum and teaching objectives fall into five areas: self-help skills, cognitive skills, physical-motor skills, communication skills and socialization skills. The technqiues of behavior modification and token economies are employed in this program which is divided up according to the child's developmental level.

Educational Programming for the Severely and Profoundly Handicapped. (Sontag, Ed. et al.) Reston, Virginia: Council for Exceptional Children, 1977.

A collection of papers from various authors on topics dealing directly with the severely and profoundly handicapped. The first few chapters of the book are service-oriented, discussing a variety of programs and service models. The last few chapters deal with specific teaching strategies and approaches in teaching skill areas such as communication and self care. This is a teacher-oriented book and discusses issues of concern in this area which are specific to teachers in terms of curriculum and role of the educated.

An Experimental Curriculum for Young Mentally Retarded Children. (O'Connor, Frances P., Talbot, Mabel E.) New York 1961.

This book is set up as a curriculum guide; each item has a five-point descriptive scale referring to development in intellectual, creative and imaginative, social, emotional, manipulative, motor and self help areas. This guide constitutes a set of short range goals which contribute in turn to the attainment of long range goals. (This book is old, but its contents are applicable to programming. Predictable behavior charts are useful.)

The Experimental Educational Training Program - An Inservice Program for Personnel Serving the Severely Handicapped. (Haring, N.G.) Seattle, Washington: University of Washington College of Education, 1977.

A series of training modules for staff at the Experimental Education Unit, University of Washington. Covers systematic instruction, assessment, curriculum principles and instructional strategies. Particular detailed modules on measurement and data analysis.

Gross Motor Management of Severely Multiply Impaired Students. (Fraser, Beverly A.) (University Park Press, 1980)

The authors present a model for service delivery that will be adaptable to most school systems, even those with limited resources. They suggest an initial medical assessment of the SMI student's abilities, especially motor function, by an evaluation team of physicians and therapists. An individualized treatment plan, which combines both medical and educational objectives, is then formulated. To help implement the program, a wide selection of techniques are suggested. As periodic evaluation of the student's progress is crucial to any program, the authors suggest the use of an objective format to select performance objectives and regularly modify the program to accommodate progress or regression.

Handbook of Blissymbolics. (Silverman, H., McNaughton, J., Kates, B.) Blissymbolics Communication Institute, Toronto, Ontario, 1978.

A general reference and component of the B.C.I. elementary workshop training program. It is not an independent instructional program.

Handling the Disabled Child in Water. (Reid, Margaret J.) (Association of Paediatric Chartered Physiotherapists, 1976)

The ideas set out in this booklet are suitable for anyone, but especially for the disabled, regardless of the degree of disability or the person's age. The method used in this book draws largely on the world renowned Halliwick Method, devised and developed by Mr. J. McMillan.

Handling the Young Cerebral Palsied Child at Home. (Finnie, Nancie R.) New York: Grune and Stratton, 1976.

The sections in this book dealing with specific techniques for positioning and feeding problems are extremely helpful. It is geared for use by parents and primary caregivers in residential settings. The specific techniques for bottle-feeding, chewing and jaw control are presented for easy application. There is additional material on normal development of eating and position.

Helping the Mentally Retarded Acquire Play Skills. (Wehman, Paul) Springfield, Ill.: Charles C. Thomas, 1977.

This book provides an application of behavioral training methods to play problems of the mentally retarded. It provides specific instructional directions and an empirical rationale for program guidelines, and addresses the leisure time needs of all ages and functioning levels of the mentally retarded. An extensive bibliography is given.

Hey Don't Forget About Me. (Thomas, M. Angele) Reston, Virginia: Council for Exceptional Children, 1976.

This program designed for the severely, profoundly and multiply handicapped child is called The Invisible College. It is an alternative to institutionalization in that it is geared toward the ideal of normalization of life style with equal opportunities for all children. Methods are aimed at revolutionizing the way severely handicapped children and adults are taught. Included is a criterion of ultimate functioning, infant identification, the role of the parent, early intervention curriculum concerns and a teacher's perspective, educational synthesizer, public school programs, planned change, the role of technical assistance, deinstitutionalization, federal leadership and the service of research. An extensive reference list is included at the end of each chapter.

Individualized Learning Program for the Profoundly Retarded. (Devore, M. Susan) Charles C. Thomas, 1977.

Book consists of a learning program to teach the profoundly and severely retarded using praise to increase motivation. Also provides a method for recording progress during this program. Lessons can be used for children in groups or at home by the parents. Can also be used with the blind, cerebral palsied, retarded child. Lessons taught fall into six categories: self-care, social, communicative, cognitive, fine motor and gross motor skills.

Language Acquisition Program for the Severely Retarded. (Kent, Louise) Champaign, Ill.: Research Press, 1974.

Designed to teach a language system to severely retarded individuals. Primarily structured for oral administration with hearing and sighted severely retarded. Explains procedure for administration of the program and is divided into pre-verbal, verbal receptive and verbal expressive. There are approximately fifty criterion for each. Includes method of assessment, recording, and adapting the program for the non-verbal student.

Manual Language Dictionary - Functional Language for the Retarded. (Wilson, Starks, Pauls, et al.) Hartford, Conneticut, 1974.

The second in a series of three contains 60 signs specifically designed for the Severely and Profoundly Retarded. The signs are standarized and have been adopted directly from the American sign language.

Manual for Teaching Swimming to the Disabled. (The Canadian Red Cross Society.)

The manual is designed to assist in the teaching of swimming to disabled persons. It contains a general section in which regular swimming strokes are explained, then six sections, one for each of the following handicaps: blind, deaf, emotionally disturbed, mentally retarded, and physically disabled, in which the teaching methods and strokes are adapted to suit the handicap. A games section and evaluation and assessment section conclude the manual.

Mealtimes for Severely and Profoundly Handicapped Persons. (Perske, Robert, Clipton, Andrew.(Eds.) University Park Press, Baltimore, 1977.

This book is a collection of chapters dealing specifically with mealtimes for handicapped persons. It is written by several authors describing their experiences, in programs within their own work settings. It is a book for both parents and professionals. It includes an annotated bibliography of resources in this area.

"Methods in Communication Instruction for Severely Handicapped Persons" In W. Sailor, B. Wilcox, and L. Brown, Methods of Instruction for Severely Handicapped Students. (Guess, D.) (Baltimore: Paul H. Brooks, 1980.)

The chaper by Guess, found in the third section of the book, entitled "Evaluation of Outcome: Current Research" is intended to provide a critical analysis of current research in communication instruction for severely handicapped students. It gives the teacher a source of empirical justification for the selection or rejection of a particular programmatic approach. Guess points again to research support for the continuing theme of this book: that skills selected for instruction should be functional, should occur in a natural environment such as a public school cafeteria or playground, and should be appropriate for the individual's interactions with that environment.

P.U.S.H. Curriculum. (Antosh, A. Anthony) Meeting Street School, 1977.

This curriculum is intended to function as a support or an instructional guide for any one who is instructing the severely handicapped learner. Content includes a list of intentions and objectives: Section A: Acquisition of body skills; B: Acquisition of concrete concepts; C: Acquisition of abstract concepts; and D: Acquisition of self-organization. A bibliography and suggested adapted equipment are included.

The Potomac Program: A Curriculum for the Non-verbal, Severely Handicapped Deaf-Hearing Impaired. (Hyde, Sarah, Engle, Delorah) Dormac Incorporated, Oregon, 1977.

This curriculum is designed to train for specific skills and learning to learn. It provides an academic approach in order to emphasize cognitive skills. Each skill is broken down into small teaching steps that reflect the developmental level. It can be used for both individual and group instruction.

Principles and Methods of Adapted Physical Education. (Arnheim, Daniel, et.al.) Mooby, 1973.

In this book, Chapter 12 provides a general overview of reaction for the mentally retarded. The book in itself is written for those serving the handicapped and discusses a variety of disorders and adaptive methods.

Program Development in Special Education. (Wehman, Paul and McLaughlin, P.J.) (McGraw-Hill Book Company, 1981)

The book is a review of happenings in special education programming in the past 3 years. The authors relied heavily on learning theory and other empirically verifiable practices to guide their suggestions and recommendations for program planning and implementation. Book is designed for undergraduate and graduate special education courses in method and/or curriculum. Part One "Program Development" presents an orderly plan for teaching handicapped individuals; this entails setting objectives, task analysis, program evaluation, etc. Part Two "Curriculum Development" presents detailed information on a range of content areas; such as self-care, motor development, language and speech development, etc. Each curriculum chapter contains sample lesson plans based on the learning principles put forth in Chapter 1.

Selected Resource Materials. (Special Education) Edmonton Public Schools, 1978.

This booklet is designed to assist teachers in selecting materials for classroom instruction. It provides selected lists of materials that are used in a classroom and provides comments about their usage.

Severely and Multiply Handicapped Programs, Teaching Methods and Curriculum. 1978 Topical Bibliography.

(CEC Information Services and Publications)

Abstracts taken from over 200 journals that deal with programs, teaching methods and curriculum for the severely and multiply handicapped.

The Severely and Profoundly Handicapped: A Practical Approach to Teaching. (Donlon, Edward T. and Burton, Louise F.) New York: Grune and Stratton, 1976.

Text Discusses aspects of teaching the severely and profoundly handicapped. Main headings are discussions of the demography of this group, assessing, recognizing and implementing for specific needs, family concerns and other considerations. Includes a system for structured observation of the mentally handicapped and references at the end of each chapter.

The Source Book for the Disabled. (Hale, Glorya (Ed.) Paddington Press, New York, 1979.

Provides a variety of references and adaptive aids for the physically handicapped. It is geared towards the physically handicapped, not the mentally retarded, but is an excellent reference.

Statewide Inservice Training Project for Teachers of the Severely Multiply Handicapped. (Halouet, J., Guess, D. and Kelly, P.) University of Kansas Medical Centre, 1979.

A series of 25 self-contained teaching modules for teachers and aides. An excellent educational package with resource materials printed along with the modules. Systematic instruction methods, curriculum ideas, record keeping and parent and volunteer programs are a few of the particularly useful modules.

Systematic Instruction of the Moderately and Severely Handicapped. (Snell, M.E.(Ed.) Columbus, Onio: Charles E. Merrill Publishing Company, 1978.

This is an excellent resource text of empirically based guidelines and models for teaching the moderately and severely handicapped. It covers a range of curricula relevant for teaching the severely handicapped from cognitive beginnings of visual tracking and imitation to more advanced instructional targets of social academics and vocational preparation. It is well suited for use by teachers as well as classroom assistants, parents and program administrators.

Teaching Individuals with Physical and Multiple Disabilities. (Bigge, June L. and O'Donnell, Patrick A.) Columbus, Ohio. Charles E. Merrill Publishing Co., 1976.

Includes process of task analysis which enables professional and other persons to cooperate in planning, implementing and evaluating instruction. Includes introduction to medical difficulties which result in various physical disabilities and general trends in motor development, deviations, treatment and training methods. Also discusses psychosocial manifestations which often accompany physical disabilities, teaching methods for those with communication problems and other topics.

Teaching the Moderately and Severely Handicapped Volume I: Behavior, Self-Care and Motor Skills. (Bender, Michael, Valletutti, Peter J., Bender, R.) Baltimore: University Park Press, 1976.

This is an extensive curriculum guide for teaching the mentally retarded, the autistic, the cerebral palsied, the multiply handicapped and other developmentally disabled persons. It consists of three volumes: Volume 1 discusses behavioral skills, self-care and gross and fine motor skills. Target behaviors are stated and teaching strategies and reinforcement schedules are given. A listing of useful books and films is also included.

Teaching the Moderately and Severely Handicapped Volume II: Communication, Socialization, Safety and Leisure Time Skills. (Bender, Michael, Valletutti, Peter J., Bender, R.) Baltimore: University Park Press, 1976.

This is an extensive curriculum guide for teaching the mentally retarded, the autistic, the cerebral palsied, the multiply handicapped and other developmentally disabled persons. It consists of three volumes: Volume II discusses teaching students socializing skills, safety and appropriate use of leisure time. Target behaviors are stated and teaching strategies and reinformcement schedules are given. Listings of useful books and films are also included.

The Teaching Research Curriculum for Moderately and Severely Handicapped. (Fredericks, H.D. Bud et al.) Springfield, Ill.: Charles C. Thomas, 1975.

Text provides teachers and parents of the moderately and severely retarded with a complete set of detailed task analyses. The curriculum areas for which task analyses are presented include the following skills: self-help, receptive language, expressive language, motor, reading, writing and cognitive. It is also recommended for the preschool child, the deaf-blind and those with multiple handicaps.

Teaching the Severely Handicapped. Vol. I - V. (Haring, Norris G. and Brown, Louis J. (Eds.) New York: Grune and Stratton, 1976.

Text is a collection of papers presented at a seminar in Kansas City, 1974. Topics include: overview of comprehensive services for severely/profoundly handicapped, educational programming, assessment and performance measurement, intervention strategies, language development programs, etc.

Toilet Training the Retarded. (Foxx, Richard & Azrin, Nathan) Champaign, Ill.: Research Press, 1973.

An excellent toilet training program. Almost all available articles and programs in this self care area have made reference to this comprehensive program.

Value Based Skills Training Curriculum. Meyer Children's Rehabilitation Institute, University of Nebraska Medical Center, Omaha.

No information available.

3. ASSESSMENT GUIDES

Adaptive Functioning of the Dependent Handicapped. Marlett, N.J., Cameron, S., Douglas, S., Hooper, E. and Long, G. Calgary, Alberta The Vocational and Rehabilitation Research Institute, 1974.

The A.F.D.H. contains 75 skills or targets relevant to the profoundly retarded child or adult and 25 common nursing concerns. The instrument can be used to:

1. identify training and medical needs of an existing population in order to group children into program areas.
2. select group priorities in order to structure daily activities that reflect the children's needs.
3. select targets for individual children.
4. measure program direction and outcome.
5. assess the child prior to intake to assist in proper placement of the child within existing options.

There are five subsections, each under four domains: Nursing Care, Physical Development, Awareness, and Self-Help. Evaluation procedure includes details for use with individual students or a group of students.

AMD Adaptive Behavior Scale. Nihira, K., Foster, R., Shellhaus, M. et al: Washington, D.C.: American Association on Mental Deficiency, 1974.

Content:
The term adaptive behavior refers to the effectiveness of an individual in coping with the natural and social demands of the environment. The scale has two parts, the first containing developmental items and the second containing maladaptive items. Part one is divided into ten domains: independent functioning, physical development, economic activity, language development, numbers and time, domestic activity, vocational activity, self direction, responsibility, and socialization.

Part two has 14 subdomains: violent and destructive behavior, antisocial behavior, rebellious behavior, untrustworthy behavior, withdrawal, stereotyped behavior and odd mannerisms, inappropriate interpersonal behaviors, unacceptable vocal habits, unacceptable or eccentric habits, self abusive behavior, hyperactive tendencies, sexually aberrant behavior, psychological disturbances, and use of medications.

Evaluation Procedure:
The score is determined subjectively by the informant dependent on how familiar the informant is with the client. There are three types of items on the scales, each with its own scoring method. If an individual scores high on part two, the reduction of some maladaptive behaviors would possible affect the score on the adaptive behavior in part one.

APT Pennhurst Assessment/Program Tool. Pennhurst State School, Spring City, Pennsylvania, 1975.

Content:
This tool was designed specifically for the severely and profoundly retarded, as well as the blind. It includes an assessment scale, remedial training programs, data sheets, and a manual. Teaching procedures are available for each item on the list.

Evaluation Procedure:
The assessment contains 50 items which are evaluated in a yes/no format by more than one person through direct observation. Daily records are kept to provide data for evaluation of staff and student performance.

Assessment in Infancy-Ordinal Scales of Psychological Development. Uzgiris, Ina C., et al. University of Illinois Press, 1978.

Series of ordinal assessment scales to test psychological development in infancy based on Piaget's theories and evidence of hierachial organization regarding intelligence and motivation. Book discusses theoretical background and reinterpretations, the research that yielded the ordinal scales and how to administer, record and interpret these scales.

Balthazar Scales of Adaptive Behavior. Balthazar, E.E.: Champaign, Ill.: Research Press, 1971.

Content:
This scale is divided into two sections, functional independence and social adaptation. Functional independence is divided into eating scales, dressing and undressing scales, and a toileting questionnaire. Social adaptation is divided into unadaptive self-directed behaviors, unadaptive interpersonal behaviors, verbal communication, play activities, response to instructions, and a personal care checklist.

It is recommended for use in providing precise objectives for program design, providing a standardized method for measurement, evaluation, and program feedback grouping of subjects on classification purpose, staff evaluation and research.

Evaluation Procedure:
Information is obtained through direct observation. The rated individual is observed in "typical" and "familiar" situations. Eating scales are scored on a 0 - 10 scale, dressing on a 0 - 6 point basis, and toileting in an interview format. In the second section scores are obtained on a frequency count per unit of time basis. Observation for this second section should occur over a 3 day period. The scores are profiled to determine the areas where skill improvements are necessary.

Bayley Scales of Infant Development. Bayley, N., Institute of Human Development, University of California, Berkeley, 1969 (revised).

Content:
These scales are normally used with children aged 2 to 30 months. They provide a basis for instituting early corrective measures when the child shows evidence of retarded mental and motor development with treatment geared to the child's developmental age. They therefore have utility with profoundly retarded older children. There are three scales: Mental Scale (163 items), Motor Scale (81 items) and Infant Behavior Record. The last assesses the nature of the child's social and objective orientations toward his environment.

Evaluation Procedure:
The first two scales use a developmental test sequence on a pass-fail basis. The Infant Behavior Record uses a rating scale based on direct observation of the child's behavior.

The Behavioral Characteristics Progression. Office of Santa Cruz County Superintendent of Schools. Palo Alto, California: VORT Corporation, 1977.

Content:
The Behavioral Characteristics Progression (BCP) is a comprehensive evaluation listing of behavioral objectives. A student's educational needs are determined through observation of the behaviors listed. In addition, a teacher can then refer to the appropriate method card for suggestions on successful techniques to train for the desired behavior. Fifty strands (skill areas) are included in the assessment.

The BCP has 5 books: Self Help Skills, Motor Skills, Communication Skills, Social Skills, and Learning Skills.

Evaluation Procedure:
A card is selected appropriate to the behavioral objective. Each card has several tasks listed which are related to a specific skill; also listed are the abilities required, the interest level, the pupil grouping, the activity length, and the number of people required to help carry out the task. A chart is provided in which to record the above information.

BKR Development and Trainability Assessment. Kirkpatrick, William J. BKR Educational Projects, Inc.

Content:
This is a checklist covering 10 areas and is similar to the Portage Guide. Also available are basic preschool curriculum activity cards with a number of short remedial programs.

Evaluation Procedure:
The items are rated on a six point scale and are directly tested. Skills are rated in a developmental sequence ranging from 0 - no attempt to 6 - very good.

C.A.D.R.E. - Cambridge Assessment Developmental Rating and Evaluation. Welch, R.J., O'Brien, J.J. & Angus, F.W. Cambridge - Isanti Public Schools, Cambridge, Minnesota: 1974.

Content:
The assessment covers 16 domains. CADRE is an in-depth behavioral assessment and can be translated into a comprehensive curriculum for very physically involved students. It covers the areas of self-help, motor skills, communication, and social skills.

Evaluation Procedure:
Items are marked on an 8 point rating scale, which can also be used as a yes/no rating. The ratings are: 1) no participation, 2) cooperatively dependent, 3) manually guided, primarily, 4) manually guided, partially, 5) complies with and imitates model, 6) initiates with verbal cueing only, 7) independent imperfect performance, 8) perceives need and/or self initiates behavior.

Camelot Behavioral Checklist Manual. Foster, R.W., Parsons, Kansas: Camelot Behavioral Systems, 1974.

Content:
Comprehensive statements and objectives which are in developmental sequences in the following domains: self-help, physical development, home duties, vocational development, economic behavior, independent travel, numerical skills, communication, social behaviors and responsibility. Once targets are derived, the Skill Acquisition Program Bibliography (Tucker, 1974) can be used to locate field tested teaching strategies.

Evaluation Procedure:
Can be administered by either report from memory and/or direct observation. Each statement is rated as can do, or needs training. These statements are transferred to a conversion sheet to assist in selecting targets in various domains and a profile of scores compared to the original population of 624 institutional MR persons.

Collier-Azusa Scale. Stillman, Robert. Collier Center for Communication Disorders, Inwood Road, Dallas, Texas: 1966.

Content:
This scale is specifically designed for deaf-blind students and results in a graphed profile of performance on the individual. There are subsections relating to visual, auditory, and tactile development. The language section covers both oral and manual communication. The skills in the daily living skills section are too general to provide for good programming.

Developmental Pinpoints. Cohen, M.A., Gross, P.J. & Haring, N.G. In N.G. Haring & L.J. Brown (Eds.) Teaching the Severely Handicapped (Vol. 1) New York: Grune & Stratton, 1976.

Content:
Contains developmental sequences of skills (pinpoints) based upon normal child development in Pre-academic leisure time, Social interaction, Self-help, Communication, and Motor skill areas. Suggested uses of the pinpoints include: (1) gaining an overview of normal development sequences of behavior, (2) assessing the behavior of individuals (3) planning both long and short-term instructional objectives and (4) seeing that curricula are "well-rounded". Programming strategies and materials are not included.

Evaluation Procedures:
The sequences provide a basis for assessment and program planning. It is recommended that assessment begin with the terminal behavior in each sequence to determine and work back to the point at which programming should begin.

Griffiths Mental Development Scale. Griffiths, Ruth. London: Child Development Research Centre, 1970.

Content:
This test is normally used for testing babies from birth to two years. It consists of five scales: Locomotor, Personal-Social, Hearing and Speech, Eye and Hand, and Performance. The tasks on each scale are ordered sequentially from the least to the most difficult and at what month they would be expected. Therefore, older children with profound handicaps may also be assessed using this developmental scale.

Evaluation Procedure:
Begin to test at a point two months below chronological age (or estimated mental age) and then continue up and down each scale until the child has passed at least six items in succession and until he has failed six items in succession. A developmental quotient can be obtained for each scale and the entire test. Development, though, is usually referred to in terms of level of functioning at a certain level of months.

Guide: A Developmental Skills Attainment System (Formerly Project Vision-up). Croft, N.B. & Robinson, L.W. Educational Products and Training Foundation, N.D.

Content:
This assessment was originally intended for visually impaired preschool children but has been found to be effective with many other handicapped populations. It contains an initial assessment questionnaire and corresponding card system, a student profile, and a curriculum handbook containing 602 skills divided into six domains as follows: (1) Physical

Development, (2) Fine Motor Development, (3) Self-Help Skills, (4) Social-Personal Skills, (5) Language Development, and (6) Intellectual Development. A major deficit of the guide is the lack of detail in the area of Self-Help skills. Another problem is the presence of many items which require some vision or presuppose unimpaired physical and sensory functioning.

Evaluation Procedure:
The guide is based on direct observation and by interviewing someone knowing the child well. It may be administered by a teacher or psychologist, preferably with the aid of a parent or key worker. It is not standardized by age, norms are adapted from the Gessel Scale of "normal" development.

Hawaii Guide to Severely/Profoundly Multi-Handicapped Child. Department of Education, State of Hawaii, June, 1977.

Content:
A guide to the development of individual education plans for severely multiply-handicapped children. It contains six domains of gross motor, fine motor, self-care, communication, social, and cognitive functioning. In addition it has guidelines for setting up meals, handling medications and seizures, and organizing classroom facilities and equipment.

Evaluation Procedure:
Assessment and the determination of functional objectives are integrated in this comprehensive guide. Teaching strategies follow from these objectives.

Koontz Child Development Program: Training Activities for the First 48 Months. Koontz, C.W. Western Psychological Services, Los Angeles, 1974.

Content:
The Koontz Program assesses developmental levels within a "normal" range of one to 48 months. It covers four domains: gross motor, fine motor, social, and language (both receptive and expressive). It also provides training activities that parallel the performance skill level. This allows the parent or teacher to set up a program based on the child's weaknesses in the evaluation.

Evaluation Procedure:
A list of graded, observable items is scored as to whether the child can perform the activity or not. The scoring system has a record card which facilitates a quick look at the child's overall developmental delays. It provides for charting over time so that progress may be observably measured.

Language Acquisition Program for the Retarded or Multiply Impaired. Kent, L.R. Champaign, Ill.: Research Press,

Content:
The content of the program is based on a variety of sequenced tasks, according to presumed difficulty, in three major sections: Pre-Verbal, Verbal-Receptive and Verbal-Expressive. Each section is divided into phases and each phase is further divided into parts. The training procedures are based on principles of reinforcement theory using a token system. Individual sessions consist of a test and teaching step. It can be used as an assessment to determine the child's entry point into the program, or at various intervals within the program to check on the child's progress. The program has been structured for oral and/or manual administration with hearing, sighted, severely retarded children, but has also been successful with visually handicapped, hearing handicapped, autistic, emotionally disturbed and aphasic children.

Evaluation Procedure:
Test every item until the child fails to meet criteria on a six-level scale (correct, approximation, incorrect, no response, no tested - did not meet pre-requisite, not tested (for any other reason). The trainer plots the results on a Performance Graph to: (1) assess the LAP as a suitable training device, (2) determining where training should begin, (3) evaluate receptive and expressive language, (4) pinpoint success or failure, (5) detect errors, and (6) assess improvement.

Learning Accomplishment Profile. Sanford, Anne R. Chapel Hill, N.C., 1974.

Content:
The LAP is designed to provide the teacher of the young handicapped child with a simple criterion references record of the child's existing skills. Use of the LAP enables the teacher to: identify developmentally appropriate learning objectives for each individual child; measure progress through changes in rate of development; and provide specific information relevant to pupil learning. It is divided into three sections: (1) Developmental data including the six areas of development: gross motor, fine motor, social, self-help, cognitive and language, (2) task analysis of specific skills, and (3) 44 weeks of curriculum units meant for recording progress.

Evaluation Procedure:
The teacher uses section one to chart progression and developmental milestones. Section two provides the task analysis for the skills. Section three provides the lesson plans for teaching specific units. The mobile is completed by direct testing and observation.

Learning Accomplishment Profile for Infants. Suffin, Patricia and Sanford, Anne, Chapel Hill, N.C., 1975.

Content:
The Learning Accomplishment Profile for Infants (LAP - I) is designed to provide the parent or teacher of the handicapped infant with a simple criterion - referenced record of the child's existing skills. The LAP thereby identifies the next appropriate step in the development of the individual child, and gives detailed instructions for reaching this objective. Short directions and recording space are also provided in convenient chart form. The instructional units in this experimental edition are in a preliminary form and will be revised as data is compiled during use of this material in ongoing infant programs. Additional units of instruction are in preparation and will be made available as they are completed. The loose leaf format of this experimental edition is designed to facilitate these periodic additions, as well as to allow users of LAP-I to add observations and materials that reflect their experience in using this manual with infants. This shared information will be of great value in revising and completing LAP-I.

Lap-I - Section I - Developmental Data: A hierarchy of behaviors listed in developmental sequence, drawn from the most recent normative data, provides the basis of an evaluation of the infant's existing skills in six areas of development: Gross Motor, Fine Motor, Social, Self-Help, Cognitive, and Language.

Lap-I - Section II: Detailed instructions and recording charts provide a method for teaching important behaviors in the sequence of development.

Evaluation Procedure:
Progress is monitored and charted as child reaches and succeeds in each stage. A section for comments is also provided.

The M.I.M.R. Basic Behavior Test, Curriculum Guide, Programming Strategy. Martin, G., Nurrell, Marg, Nicholson, C. & Tallman, B. Manitoba Institute on Mental Retardation, Portage La Prairie, Canada, 1975.

Content:
Self-contained system for assessing sequencing and teaching self care, initiative and instruction following skills.

Evaluation Procedure:
Student is asked to perform the skill and is given progressively more powerful prompts until the behavior is either performed or the student refuses, e.g. verbal, physical prompt or physical guidance. An excellent guide to a stepwise assessment/training approach.

Pennsylvania Training Model: Assessment Guide. Harrisburg, Pennsylvania, Pennsylvania Department of Education, Division of Special Education, 1973.

Content:
The Pennsylvania Assessment was designed so that the evaluator follows this sequence: (1) screening through specific testing on major domains, (2) specific assessment within domains, and (3) use of individual program planning forms for program design. Unfortunately, this assessment guide employs some fairly sophisticated terminology and gives no guidelines for the testing of most of the items. If the teacher has a physical or occupational therapist consultant assessment and the training of the physically disabled, the Pennsylvania Assessment will be valuable, particularly when coupled with other resources (Finnie, 1970; Macey, 1974; Vanderheiden and Grilley, 1975). It will be of little value to parents or paraprofessionals unless they are specifically trained in its use.

Evaluation Procedure:
This assessment is rated on a competency checklist format, with a percentage rating scale. The competency checklist is rated 0 - no competency, 1 - moderate competency, 2 - adequate competency, 3 - complete competency.

The Portage Guide to Early Education. Shearer, D., Billingsley, J., Frohman, A., Hilliard, J., Johnson, F. & Shearer, M. Portage, Wis.: Cooperative Educational Service Agency 12, 1972. Combines with information contained in S.J. Weber, et al. The Portage Guide to Home Teaching, Portage, Wis., Cooperative Educational Service Agency 12, 9175.

Content:
The Guide, designed for use with children whose mental ages range from birth to 5 years and originally developed for home intervention, consists of two parts: a sequential behavior checklist and a set of curriculum cards to match behaviors included on the checklist. The checklist, which is divided into five developmental areas: cognitive, self-help, motor, language, and socialization, is used to pinpoint behaviors already present in the child's repertoire and to indicate behaviors that have not yet been acquired. The curriculum cards include a specific behavioral description of each item on the checklist, as well as suggested activities and materials for teaching.

Evaluation Procedure:
(Described in Weber, et al, 1975.) The general strengths and weaknesses of the child are first identified using formal assessment instruments and informal observation. Criteria for specific tasks in each developmental area are formulated. Data for each task is recorded and analyzed regularly and if criteria is not reached (within a pre-specified time), a new instructional plan is devised. If criteria is reached, a plan is formulated for the next step in that particular area. Good for parent use at home.

A Prescriptive Behavioral Checklist for the Severely and Profoundly Retarded. Popovich, Dorothy. Baltimore: University Park Press, 1977.

Text presents a checklist and applicable task analyses designed for use with profoundly retarded children of developmental age span 0 - 3. Checklist contains assessment profiles for motor development, attending, auditory training, physical imitation object discrimination, etc. Also included are training programs for parents and aides in a programmed instruction format that can be used for training and remediation. Good as a text for a special education course and as a resource for those in a Head Start or Infant stimulation program.

Pre-Vocational Packages. Hughson, E.A., Berrien, V. & Brown, R.I. and various authors, Calgary, Alberta: V.R.R.I., 1978.

Content:
Training programs for a number of practical applications of skills for the severely and profoundly retarded with an emphasis on community standards at an adult level. Separate program packages are available in: (1) Attention, (2) Daily Living Skills, (3) Discrimination, (4) Fine Motor, (5) Gross Motor, (6) Language, (7) Money, (8) Personal Grooming, (9) Pre-number, (10) Social Sight Reading (11) Time-telling, and (12) Work Skills.

Evaluation Procedure:
Each training package has an assessment that provides a training baseline. The various assessments make use of checklists based on direct observation and more formalized tests with discreetly stated criteria, testing conditions and materials. Dichotomous (yes-no, right-wrong) and three-point rating scales are employed depending on the type of skill involved.

Project M.O.R.E. (Medical Operational Research for Education). Lent, J. Jacksonville, Ill.: Psychologist and Educator.

Content:
Several instructional programs on various areas of self-help are available from this project. Hair rolling, face shaving, showering, bathing, tooth brushing are a few examples of these instructional programs.

Evaluation Procedure:
The materials include checklists and graph paper for assessment.

Project Learn Checklist. Footer (from assessment scales module, University of Kansas), 1978.

Content:
This test was standardized exclusively on severely handicapped individuals and arranged in a developmental sequence of difficulty. There are six domains: gross motor, fine motor, self-help, communication, social, and pre-academic. Also contained are behaviors such as signing, use of wheelchairs, and assisted walking. Also available is a curriculum manual containing programs of training for skills listed in the assessment.

Evaluation Procedure:
This checklist is scored on a 'can do' vs. 'need training' basis and is completed through direct observation or by informants familiar with the client.

The Right-To-Education Child: A curriculum for the severely and profoundly mentally retarded. Myers, D.G., Sinco, M.E. & Stalma, E.S. Springfield, Ill.: Charles C. Thomas, 1973.

Content:
Instructional units are provided for sensory, motor, self-care and language readiness developmental areas. Each unit includes instructional objectives, readiness requirements, teaching procedures, and evaluation questions.

Evaluation Procedure:
A "curriculum chart" is completed to assess pupil competency in each of eight general program areas. Before instruction on a unit is begun, a sequentially arranged "competency checklist" is administered for the unit. Results enable the teacher to determine at which point in the sequence to begin instruction. Except in the case of toilet training, daily student performance is assessed via nonquantitative questions provided with each instructional objective.

A Step-by-Step Learning Guide for Retarded Infants and Children and a Step-by-Step Learning Guide for Older Retarded Children. Johnson, V.M., & Werner, R.A., New York: Syracuse University Press, 1975.

Content:
This curriculum consists of 106 skills grouped into 9 categories, e.g. gross motor, fine motor, feeding. A checklist and descriptions of behavior modification and task analysis are provided.

Evaluation Procedure:
The checklist is administered to select initial curriculum tasks. It is scored on a pass-fail basis. The authors recommend that daily records of each individual's performance be kept in order to update the curriculum at weekly or monthly intervals and that a tabular format be used for record keeping. Data to be recorded include the specific tasks on which the child is receiving instruction, the number of times each task was presented, and whether performance was correct or incorrect on each trial.

Systematic Instruction for Retarded Children: The Illinois Program. Chalfort, J.C., and Silikovitz, R.G., Danville, Ill.: The Interstate Printers and Publishers, 1972.

Three major areas of instruction - language, self-help, motor performance and recreation - provide a very comprehensive curriculum program. The language section seeks to develop good sitting and attentional behaviors so that the child learns to respond to verbal instruction. The self-help curriculum consists of four programs: dressing, dining, toilet training, and grooming. Motor performance and recreation instruction seeks to develop gross and fine motor control. The instructional program also included a teacher-parent guide which is very helpful.

The TARC Assessment System (Users Manual). Sailor, W. Lawrence, Kansas, H & H Enterprises, 1975.

Content:
A short form assessment that focuses on formulation of instructional objectives and subsequent curriculum selection within an educational system. A highly developed and computerized system that profiles the child's strength and weaknesses, formulates educational objective and selects from methods existing in technology (with purchase price) - even though the author admits that many of the methods are, as yet, untried or proven.

Evaluation Procedure:
Using a scalar technique, e.g. choose the statement out of the 5 or 6 subjects that describes the child, and categorical judgements which skills can he do, the observer "taps" skill domains self-help, motor, communication, social skills using designated activities. Scoring is particularly useful at the lower levels of functioning.

Teaching the Moderately and Severely Handicapped: Curriculum Objectives, Strategies and Activities. Bender, M., Valletutti, P.J. with Bender, R. Baltimore, Md.: University Park Press, 1976.

Content:
A curriculum in three volumes which covers the domains of classroom behavior, self-care skills, gross motor skills, fine motor skills, nonverbal and verbal communication, socialization, safety skills, leisure skills, functional reading, functional writing, functional arithmetic, and consumer skills. With each curriculum objective, there is a specified student performance with the number of required observations and a parallel diagnostic checklist. Teaching activities for each objective are written in behavioral terms and are "teacher-centered" so that the persons implementing the curriculum would know activities appear to be scaled far too high for moderately and severely handicapped students.

Evaluation Procedure:
For each item on the diagnostic checklist the authors have arrived at a R.P.L. - "Required Performance Level". This is expressed in percentage terms. This is compared to the S.P.L. - "Student Performance Level" - which is computed by taking

$$\frac{\text{successful student performance}}{\text{recommended observation}} \times 100$$

By comparing the S.P L. and the R.P.L., a teacher can determine whether or not a student requires additional programming for the task. For charting over a time, the authors also describe an "Annual Performance Profile" where the teacher lists specific behavior objectives which are marked according to (1) N/A, (2) A - Assistance, and (3) I - Independence.

The Teaching Research Curriculum for Moderately and Severely Handicapped. Fredericks, H.D. Bud, et al. Springfield, Ill.: Charles C. Thomas, 1975.

Although the Fredericks Guide is not an assessment, the child's progress through the various steps of the curriculum should be recorded. The curriculum is divided into the following domains: (1) self-help skills, (2) motor skills, (3) receptive language skills, (4) expressive language skills, (5) writing skills, (6) reading skills, (7) cognitive skills. Each of these are broken down into three components: (1) skill - a complex behavior made up of a number of sub-ordinate behaviors, (2) phase - a further breakdown of the above-mentioned sub-ordinate behaviors, and (3) step - a minute breakdown of a phase.

The Total Communication Checklist and Assessment. Woldo, Barnes, Berry, Kansas Neurological Institute, 1978.

This tool was developed for three purposes: (1) to determine responses in the student's repertoire, (2) to assess the most appropriate communication mode for the student, and (3) to help establish training objectives in the communication domain. There is an instruction manual, checklist and battery of assessments, and a communication profile.

Uniform Performance Assessment System (U.P.A.S.). Experimental Education Unit, WJ - 10, Child Development and Mental Retardation Center, University of Washington, Seattle, Washington.

Content:
This assessment is divided into subtests of: (1) gross motor (93 items), (2) pre-academic (76 items), (3) communication (69 items), and (4) social/self-help (45 items) domains. It provides individual checklists, criterion tests, and optional computer results on a per pupil charge.

Evaluation Procedure:
The U.P.A.S. follows a criterion-based checklist with a dichotomous Pass(+) - fail(-) rating scale. The skills are color-coded and graphed on an evaluation sheet where student's scores are compared to a normal acquisition curve from zero to six years. The evaluation graph allows for four testing periods so that a student's progress may be regularly plotted.

Vulpe Assessment Battery, Vulpe, Shirley. National Institute on Mental Retardation, Toronto, 1977.

Content:
The Vulpe Assessment is based on a commitment to individualized program planning. It provides developmental assessment and performance analysis for: educational programs, child-parent programs, language therapy programs, physical therapy programs, infant stimulation programs, behavior management program, descriptive ability assessment, child development programs, child performance tracking, home training programs, and residential programs for the typical child.

Evaluation Procedure:
The child is tested in a variety of competency areas and rated for level of skill attainment. Teaching approaches are then indicated for areas to be developed.

Wabash Guide to Early Development Training. Tilton, J.R., Liska, D.C. & Bourland, R.W. Layette, Indiana: Wabash Center Sheltered Workshop, 1972.

This is a comprehensive program providing individual programming, which can be revised and upgraded as the need arises. It offers a practical assessment method and is intended for children from infancy to school age. The curriculum is adaptable to a wide range of disabilities and uneven patterns of development.

The Washington State Cooperative Curriculum Project (W.S.C.C.). Edgar, E., Sulzbacker, S., Swift, P.E., Harper, C.T., Alexander, B. & McCormick, G. 1975.

Content:
The curriculum items consist of two parts, Objective Statement (OS) and Criteria Tests (CT). The OS's provide an evaluation of student performances in sixteen instructional areas. These statements facilitate communication to all those concerned with the student and provide a frame work for the teacher's sequencing of instruction. The CT's provide operational definitions of the behaviors listed in the OS's and specify the standards of assessment. The system is computerized and the curricular objectives are scaled empirical learning sequences.

Evaluation Procedure:
The W.S.C.C. is designed to be teacher administered and can be used both to assess handicapped children and profile ongoing evaluation data. The assessment data can be used to determine initial program placement for handicapped children as well as to establish specific individual objectives. Over 1,500 Criteria Tests have been field-tested (with reliabilities of over 85%) with an additional 1,000 Criteria Tests in development. Information is not available on the format of the computerized tests.